


***Suicide risk assessment:  
Implications for practice***

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***Disclosures***

**Hilary Boyd, MSN, RN, APNP, PMHNP-BC, Jerry Halverson, MD, FACPpsych, DFAPA, and Rachel Leonard, PhD**, have each declared that they do not, nor does their family have, any financial relationship in any amount occurring in the last 12 months with a commercial interest whose products or services are discussed in the presentation

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***Learning objectives***

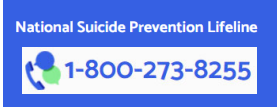
Upon completion of the instructional program, participants should be able to:

1. Summarize three essential elements of the suicide risk assessment process
2. Apply at least two evidence-based interventions for suicide prevention

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***What we'll cover in this webinar***

<b>An overview of suicide risk assessment</b> <ul style="list-style-type: none"><li>• Suicide risk trends</li><li>• Risk factors; epidemiology</li><li>• Assessment process; assessment tools</li></ul>	<b>Future state recommendations</b> <ul style="list-style-type: none"><li>• Integration into clinical workflow</li><li>• Regulatory implications</li><li>• Using technology for decision support</li></ul>
<b>Best practices and implementation</b> <ul style="list-style-type: none"><li>• Best practices</li><li>• Care planning</li><li>• Prevention strategies</li><li>• Clinical documentation</li></ul>	<b>Moderated Q&amp;A</b>



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*Epidemiology, risk factors, and best practices in suicide risk assessment*



Please use the Q&A feature to send your questions to the moderator

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### *Epidemiology of suicide* *(world health organization, 2021)*

- A global public health crisis
- **Fourth leading cause of death** in age group 15-29, over 700,000 people die from suicide annually
- More deaths to suicide than HIV/AIDS, malaria, war and homicide
- Male rate of suicide is 2.3 times greater than female rate
- Firearms account for half of deaths by suicide in US
- 77 percent of suicide deaths were in low- and middle-income countries
- Global suicide rate per age increased only in the North Americas from 2000-2019

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*Risk factors*

Age	Gender (male)	Previous suicidal behavior or attempts	Family history
Self injurious behaviors	Psychiatric hospital discharge	Recent visit(s) to PCP or ED	Veteran status
Presence of mood disorder, anxiety disorder, SUD, psychosis, BPD	Hopelessness, trauma, psychosocial stressors	Chronic medical condition	Physical pain, chronic pain
Financial stressors	Access to means	LGBTQ and other vulnerable populations	Impulsivity

(Ahmedani et. al, 2014; Chung et. al, 2017; AFSP, 2021; Nelson et. al, 2017; Pisani et al, 2016; Ramchand et. al, 2021)

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*Warning signs*

- Talking about death or killing self
- Researching suicide
- Statements of hopelessness, helplessness
- Changes in sleep, mood, energy, interaction, substance use
- Feeling or stating one feels like a burden to others
- Ending relationships, saying “goodbye”, giving things away, planning for others
- Accessing means

(American Foundation for Suicide Prevention, 2021)

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**Best practices in suicide risk assessment: Themes in the literature**

- Multiple suicide prevention models without a confirmed gold standard model
- Multiple standardized assessment tools and practice guidelines
- Multimodal assessment approach is best practice
- Assessment of suicidal ideations, risk factors, protective factors, means, communication, safety planning are elements in various risk assessments

(Brodsky et. al, 2018; Nelson et. al, 2017; Nazem et. al, 2019)

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**Best practice: Assessment**

- Determine risk factors currently and previous risk factors
- Determine protective factors, assessing support systems
- Assess risk temporally/ acutely and globally
- Be direct with questions yet therapeutic
- Use a standardized tool for screening
- Assess suicidal thoughts, presences of plan, intent, means
- Consider environment and access to means
- **Continuous assessments, continuous documentation**
- **Strong probability patient will not divulge SI unless the clinician directly asks** (Horowitz et. al, 2018)

(Nazem et. al , 2019; Pisani et al 2016; Stanley et. al, 2019)

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**Best practice: Interventions**

- Follow up communications (phone calls)
- Increase frequency in visits, higher levels of care
- Cognitive Behavioral Therapy, Dialectical Behavior Therapy
- Collaboration with other care providers
- Safety planning
- Means restriction
- Psychopharmacology

(Vaiva et. al, 2019; Nazem et. al, 2019; Brodsky et. al, 2018; Nelson et. al, 2017)

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**Best practice: Cultural considerations**

- Limited research body, needing more studies with different cultures and populations
- Risk factors or meaning of suicide may be different per individual, per culture
  - Study from Chu et. al (2017) included Asian Americans, Latinos, and Caucasians
    - Hopelessness, despair, need for escape, lack of meaning in life, feeling like a failure more common in Caucasian and Asian Americans as reasons for suicide
    - Latinos more impacted by intrapersonal relationship; feeling burdensome as a reason to consider suicide. Additionally, a need to escape a social situation or environmental stressor such as poverty, enduring racial trauma

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**Best practice: Cultural considerations (contd.)**

- Family conflicts and minority stress are risk factors for increased distress in differing cultural groups and subsequently expression of SI or attempts
- A culture's acceptance of suicide may influence an individual's expression of suicidal ideation or an attempt
- Somatic symptoms, fatigue, shame, anger may be how distress is expressed
- Indigenous/Native American and Alaska Natives have the highest rates of suicide out of all minority communities in the US
- Shame is a strong risk factor for suicide and suffering in silence in multiple Asian and east-Asian cultures
- Academics stress or pressure has been suggested to be greater risk factor in Asian communities than European-American communities

(Chu et. al, 2020; Clay, 2018)

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**Best practice: Cultural considerations (contd.)**

- Shame can prevent one from seeking help
- Fear of not following cultural expectation of not sharing problems outside of the home can prevent Latinos from seeking help
- Difficulty with balancing , contrasting cultural differences between home culture and new culture
- Trauma passed down, discrimination, lack of access to resources may profoundly impact an individual from a minority group disclosing their suicidal thoughts

(Clay, 2018)

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**Best practice: Patient care**

- Be aware of cultural differences
- Be aware of biases, this helps achieve culturally safe care
- Be aware of stereotype threat
- Provide appropriate resources
  - Interpreter services are required by law

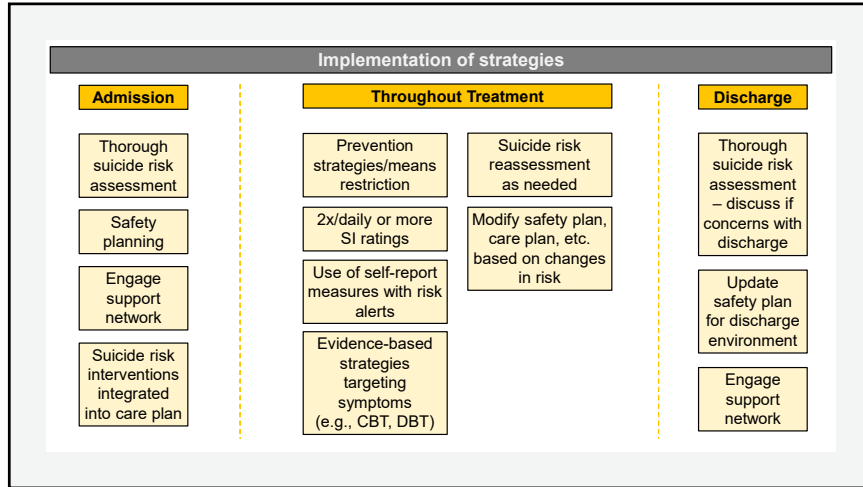
(Mkandawire-Vihmu, 2018)

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**Implementation**

 Please use the Q&A feature to send your questions to the moderator

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### Thorough suicide risk assessment: SAFE-T with C-SSRS

**Ideation, plan, intent, and any history of suicidal behavior**

**Risk factors**

- Modifiable (e.g., impulsivity, insomnia, perceived burdensomeness)
- Non-Modifiable (e.g., male, Caucasian, family history of suicide)

**Protective factors**

- Internal (e.g., religious beliefs)
- External (e.g., beloved pets, supportive social network)
- Extent to which protective factors have impact on stopping individual from attempting suicide

**Environmental risks**

- Access to means

*Careful review of these factors, mental status, clinical observation, and clinical judgment should be used to determine risk level*

(Posner et al., 2011)

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### Safety planning

- Collaborative discussion between treatment provider and the patient
- Warning signs
  - Warning signs the patient can notice that indicate they may engage in an unsafe behavior
  - Warning signs the patient's support network can notice that indicate the patient may be struggling
- Resources/skills to keep the patient safe
  - Crisis lines
  - Local emergency department/inpatient unit
  - Talk with support network
  - Specific skills to practice
  - Reminders of protective factors
- Plan for restricting access to lethal means

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### Prevention strategies: Engage support network

- Talk with them about signs of suicide
- Encourage direct communication with the patient about suicide – dispel common myths
- Encourage communication with treatment team if they notice signs of suicide or feel something is off

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### Prevention strategies: Means restriction

Important to reduce chances of impulsive actions the individual may regret

- A study of 82 individuals who survived a suicide attempt found that almost half of the participants reported that their first current thought of suicide occurred within 10 minutes or less of their attempt (Diesenhammer et al., 2009)
- Further, the majority of people who attempt suicide will go on to have no further attempts (Owens et al., 2002)
- Therefore, removing access to means, especially more lethal means, during times of acute crisis and impulsivity can help save lives

Engage support network (esp. if they live with patient) to reduce access to means

- Especially important to remove access to firearms

Consider risk factors / access to means in the treatment environment (e.g., cords, etc.)

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### Prevention strategies: Act fast when a patient is not where you expect them!

Reach out to patient and then emergency contact if they do not arrive to treatment

Ensure you have an accurate address for the patient and know variations in this (e.g., minors going between households of divorced parents)

For virtual treatment – ask each date of service the address from which the individual is participating

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### Integrating strategies into care plan

Include interventions specific to the patient's risk level:

- Physician orders to restrict access to means (e.g., sharps restriction)
- Frequency of suicide risk check-in ratings
- Frequency of rounds/observation
- Counseling with family/support network around means restriction
- Medication limits (e.g., medication refills only for one week at a time)

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### Additional data

**Quick Inventory of Depressive Symptomatology Self-Report** (QIDS-SR; Rush et al., 2003) suicide item (thoughts of death or suicide )

*Response options:*

- I didn't think of suicide or death
- I felt that life was empty or wondered if it was worth living
- I thought of suicide or death several times for several minutes over the past 7 days
- I think of suicide or death several times a day in some detail, or I have made specific plans for suicide or have actually tried to take my life

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## Additional data

**Beck Depression Inventory (BDI; Beck & Steer, 1988) / Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) suicide item**

*Response options:*

- I don't have any thoughts of killing myself
- I have thoughts of killing myself, but I would not carry them out.
- I would like to kill myself
- I would kill myself if I had the chance

Useful in screening for the need for more thorough assessment of suicidal ideation  
 Has good concurrent and predictive validity in some studies (Beck & Steer, 1991; Brown et al., 2000)

## Additional data

**Safety Rating Form**  
**Suicidal Ideation**  
 Do you currently have thoughts of killing yourself with some intention of acting on them?  
 Yes  No  
If yes, please choose the rating (6 or 7) that best fits your current experience. If no, please continue to the next section.

Rating	Categorization	Description
7	High (Thoughts of suicide)	You plan to attempt to kill yourself when the next chance presents itself.
6		You have frequent thoughts of suicide with a specific plan. You are thinking about acting on your plan. You may have the means to act (e.g., pills).

Please mark the rating that best fits your current experience:  6  7  
For those who reported "no" to the above question, please review the descriptions below to determine the rating (0 through 5) that best fits your current experience.

Rating	Categorization	Description
5	Medium (Thoughts of suicide)	You have frequent thoughts of suicide. You are thinking about possible plans. You do not intend to act on your thoughts in the foreseeable future.
4		You have very frequent thoughts of suicide (multiple times per day). You have no plans in mind and no intent to act on your thoughts about suicide.
3		You have frequent thoughts (every day) about suicide but no plans in mind and no intent to act on your thoughts about suicide.
2		You have infrequent thoughts (not every day) about suicide but no plans in mind and no intent to act on your thoughts about suicide.
1	Low (Thoughts of suicide)	You have fleeting, passive thoughts of suicide ("It would be nice if I died") but no plans in mind and no intent to act on these thoughts.
0		You have no thoughts of suicide.

Please mark the rating that best fits your current experience of SI:  
 0  1  2  3  4  5

- Daily SI ratings
- High ratings result in direct monitoring until suicide risk reassessment completed
- Change in pattern of ratings

## Interventions for suicide prevention

- Some promising evidence in support of the following treatments:
  - Cognitive therapy for suicide prevention (CT-SP; Brown et al., 2005)
  - Dialectical behavior therapy (DBT; Linehan et al., 2006) for those with borderline personality disorder
  - Problem solving therapy (PST; Hatcher, Sharon, Parag, & Collins, 2011)
  - Mentalization-based treatment (MBT; Bateman & Fonagy, 1999)
  - Psychodynamic interpersonal therapy (PIT; Guthrie et al., 2001)
- Several gaps in the literature, sampling, and methodological concerns – further research is needed (Brown & Jager-Hyman, 2014)

## Clinical documentation

- Document thoroughly each of these steps, and rationale for overall risk determination
- Safety plan should be a living document that changes over time based on changes in risk, identification of new skills/strategies, changes in environment

*Regulatory implications and future state recommendations*



Please use the Q&A feature to send your questions to the moderator

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*Regulatory and future state*

- Regulatory implications
- Future state
  - Use of screening tools
  - Using technology for decision support
    - eC-SSRS
    - Artificial intelligence – suicide algorithm
    - Population screening approaches

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*Joint Commission update effective 7/2020*

- These new requirements are at National Patient Safety Goal (NPSG) 15.01.01 and are designed to improve the quality and safety of care for those who are being treated for behavioral health conditions and those who are identified as high risk for suicide
- Because there has been no improvement in suicide rates in the U.S., and since suicide is the 10th leading cause of death in the country, The Joint Commission re-evaluated the NPSG in light of current practices relative to suicide prevention

Joint Commission's *Leading the Way to Zero*® initiative:  
<https://www.jointcommission.org/performance-improvement/joint-commission/leading-the-way-to-zero/>

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*Regulatory implications*

- NPSG.15.01.01: Reduce the risk for suicide
  - All patients in psych inpatient units or in gen med hospitals being treated for psych diagnoses. Environmental risk assessment – mitigate risk
- NPSG 15.01.01, EP 2:
  - BHC: Screen all individuals served for suicidal ideation using a validated screening tool.
  - HAP: Screen all patients for suicidal ideation who are being evaluated or treated for behavioral health conditions as their primary reason for care using a validated screening tool

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### Expectations for suicide risk assessments

- Organizations are required to develop and follow written policies and procedures addressing the care of patients identified as at risk for suicide, including guidelines for suicide risk reassessment.
- Reassessment guidelines should address how often reassessments will occur as well as additional criteria that trigger a reassessment; for example, a change in patient status, endorsement of suicidal ideation, and/or suicidal or self-harm behaviors or gestures.
- An evidence-based process must be used to conduct suicide risk reassessments for individuals who have screened positive for suicidal ideation and were further assessed for suicide risk.
- At a minimum, reassessments must directly ask about suicidal ideation, plan, intent, suicidal or self-harm behaviors, risk factors, and protective factors.

Joint Commission's Leading the Way to Zero® initiative

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### Expectations for suicide risk assessments

- The use of an evidence-based assessment tool, in conjunction with clinical evaluation, is an evidenced-based process effective in determining overall risk for suicide. The use of evidence-based tools is strongly encouraged, and it is acceptable for organizations to use language that is more appropriate for the population they serve.
- The evidence-based process must determine a level of suicide risk (for example, high, moderate, low). This overall level of risk must be clearly documented, with clinical justification, as well as the plans to mitigate the risk for suicide.

Joint Commission's Leading the Way to Zero® initiative

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### Expectations for suicide risk assessments

If the organization does not use an evidence-based tool, the following conditions must be met:

- The organization can demonstrate the evidence-based resource(s) upon which its reassessment is based.
- The reassessment asks directly about suicidal ideation, plan, intent, suicidal or self-harm behaviors, risk factors, and protective factors.
- How level of risk was determined is clearly documented.

Joint Commission's Leading the Way to Zero® initiative

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### Evidence-based suicide risk screening tools

#### Examples of validated screening tools include:

- ED Safe Secondary Screener
- PHQ-9
- Patient Safety Screener
- TASR Adolescent Screener
- ASQ Suicide Risk Screening Tool
- Columbia-Suicide Severity Rating Scale – can be used for both screening and more in-depth assessment of patients who screen positive for suicidal ideation using another tool

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### *Current risk detection*

- Interview-based assessments
  - Lengthy
  - Not all freely available
  - Interviewer specific factors
- Over 30 years meta-analyses show low predictive power in these assessments
- Prediction by diagnosis and traditional factors also typically poor

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### *Technology*

- eC-SSRS\*
- Artificial Intelligence / Suicide Risk Algorithm
- Community Screening\*

\* waypointhealth.com

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### *Electronic screening – eC-SSRS*

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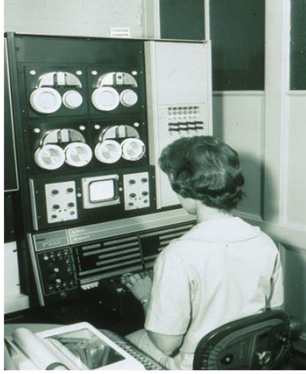
### *eC-SSRS*

- Computer or tablet administered self-report version of Columbia Severity Suicide Risk Severity (C-SSRS)
- Has been in use for over 15 years with robust support, but historically in trials and not ubiquitously in clinical arenas

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**Computer-automated assessment of suicidality, circa 1973**

“Patients preferred the computer interview to talking to a physician ... the computer was more accurate than clinicians in predicting suicide attempts.”



(Greist et al, 1973)

**Benefits of eC-SSRS**

- Self report with provider alert vs provider administered
- Consistent administration
- Easier to fit into provider workflow
- Add on to “usual care” at point of care
- Indirect assessment of suicide risk factors appears to be more sensitive than direct assessment

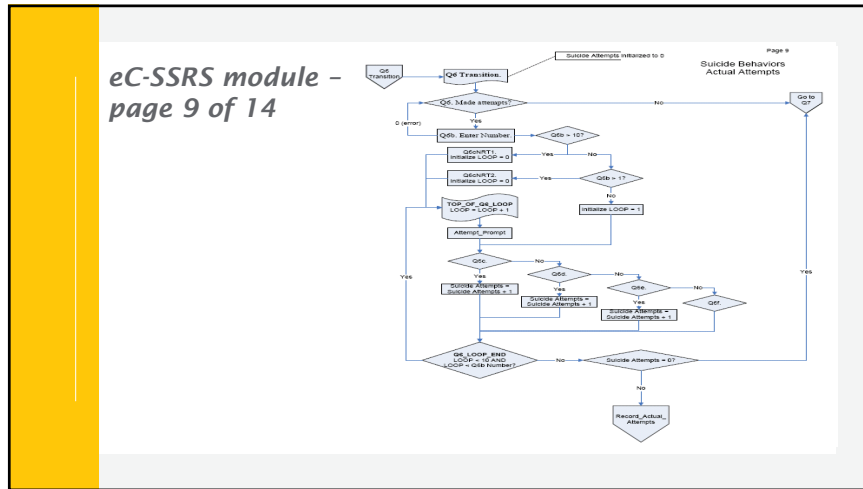
(Greist et al., 2014)

**C-SSRS and eC-SSRS: Key concepts**

<p><b>IDEATION</b></p> <p><i>Pressing</i></p> <ol style="list-style-type: none"> <li>1. Wish to be dead, sleep and not wake up</li> <li>2. Thoughts of killing self</li> <li>3. Contemplation of method</li> <li>4. Intention to act</li> <li>5. Intent and plan</li> </ol>	→	<p><b>INTENSITY</b> (only for most severe ideation)</p> <p>Frequency Duration Controllability Deterrents Reasons</p>
<p><b>BEHAVIOR</b></p> <ol style="list-style-type: none"> <li>1. Suicide Attempts (Intent/Desire to Die)</li> <li>2. Self-injurious Behavior. Nonsuicidal</li> </ol>	→	<p><b>LETHALITY</b></p> <p>Injury Severity Potential Lethality</p>
<ol style="list-style-type: none"> <li>3. Interrupted Attempts</li> <li>4. Aborted Attempts</li> <li>5. Preparatory Actions</li> </ol>	→	<p><b>REPORT</b></p> <p>↓</p> <p><b>CLINICIAN</b></p>

**Positive = Ideation 4 or 5 or any behavior**

SUICIDAL BEHAVIOR	Since Last Visit
<p><i>(Check all that apply, so long as these are separate events; must ask about all types)</i></p> <p><b>Actual Attempt:</b> A potentially self-injurious act committed with at least some wish to die, as a result of act. Behavior was in part thought of as a method to kill oneself. Intent does not have to be 100%. If there is any intent/desire to die associated with the act, then it can be considered an actual suicide attempt. <b>There does not have to be any injury or harm, just the potential for injury or harm.</b> If person pulls trigger while gun is in mouth but gun is broken so no injury results, this is considered an attempt.</p> <p><b>Inferred Intent:</b> Even if an individual denies intent/wish to die, it may be inferred clinically from the behavior or circumstances. For example, a highly lethal act that is clearly not an accident so no other intent but suicide can be inferred (e.g., gunshot to head, jumping from window of a high floor/story). Also, if someone denies intent to die, but they thought that what they did could be lethal, intent may be inferred.</p> <p><b>Have you made a suicide attempt?</b></p> <p><b>Have you done anything to harm yourself?</b></p> <p><b>Have you done anything dangerous where you could have died?</b></p> <p><i>What did you do?</i></p> <p><i>Did you _____ as a way to end your life?</i></p> <p><i>Did you want to die (even a little) when you _____?</i></p> <p><i>Were you trying to end your life when you _____?</i></p> <p><i>Or did you think it was possible you could have died from _____?</i></p> <p><i>Or did you do it purely for other reasons / without ANY intention of killing yourself (like to relieve stress, feel better, get sympathy, or get something else to happen)? (Self-Injurious Behavior without suicidal intent)</i></p> <p><i>If yes, describe.</i></p>	<p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>Total # of Attempts</p> <p>_____</p> <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/></p>
<p><b>Has subject engaged in Non-Suicidal Self-Injurious Behavior?</b></p> <p><b>Interrupted Attempt:</b> When the person is interrupted (by an outside circumstance) from starting the potentially self-injurious act (if not for that, actual attempt would have occurred).</p> <p><b>Overdose:</b> Person has pills in hand but is stopped from ingesting. Once they ingest any pills, this becomes an attempt rather than an interrupted attempt.</p> <p><b>Shooting:</b> Person has gun pointed toward self, gun is taken away by someone else, or is somehow prevented from pulling trigger. Once they pull the trigger, even if the gun fails to fire, it is an attempt.</p> <p><b>Jumping:</b> Person is poised to jump, is grabbed and taken down from ledge.</p> <p><b>Hanging:</b> Person has noose around neck but has not yet started to hang - is stopped from doing so.</p> <p><b>Has there been a time when you started to do something to end your life but someone or something stopped you before you actually did anything?</b></p> <p><i>If yes, describe.</i></p>	<p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/></p> <p>Total # of interrupted</p> <p>_____</p>



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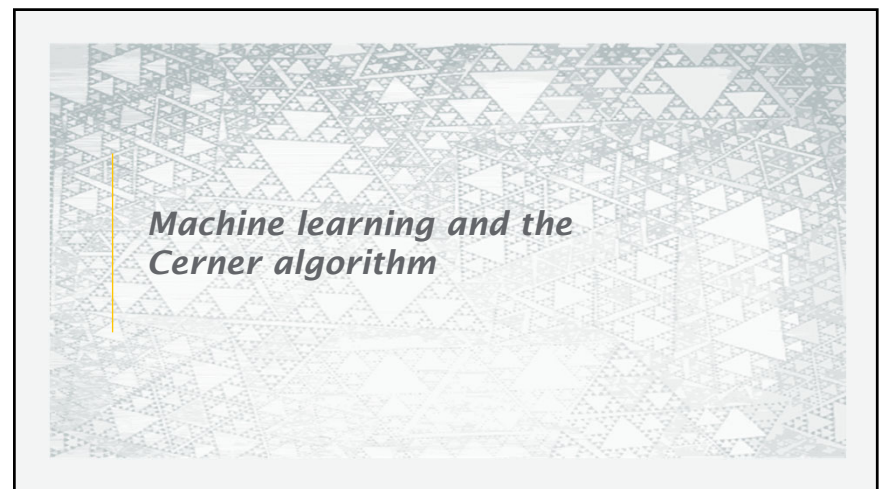
*Pilot*

eCSSRS and standard CSSRS both given to patients

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- Should clinicians start updating their CVs?*
- This is a complementary tool – decision support at the point of care – to be integrated with other known data
    - Computer interview standardization
    - Greater patient disclosure to computer
    - Clinician knowledge, experience, intuition, integration
    - Can be better together than either alone
  - Most eC-SSRS reports are negative only needing brief clinical attention while positive alerts can help to organize and guide clinician action

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### Machine learning

- Machine learning is a branch of artificial intelligence
  - Artificial intelligence was created to think or solve problems as a human would
- Novel to many, yet rooted in classical statistics and mathematics
- Finds patterns* in “big data”
- 67% of all industries are using machine learning

(Beam et al, 2018)

### Machine learning benefits and risks

- Finding meaning in large data sets
- Efficiency
- Another source of data
- May find patterns humans may not find
- Risk for bias
- Risk for exacerbating healthcare disparities or exposure
- Error, machine learning is not perfect

### Healthcare examples

- Sepsis prediction in the emergency department
- Diabetic retinopathy
- 30-day readmission rates
- Opioid use disorder
- Coumadin dosing
- Suicidal behaviors and suicide attempts
- Estimated risk for drug and device clinical trials

### Suicide risk algorithms

- Suicide risk algorithms have proven to perform significantly well in **identifying accurate risk level** for suicide, not predicting suicide attempts (Barrak-Coren et. al, 2017; Van Mens et. al, 2020; Zheng et. al, 2020; Bernert et. al, 2020)
- Suicide risk algorithm was **more accurate than clinician assessment** (Bernert et. al, 2020)
- (Barrak-Coren et. al, 2017) , model in retrospective study identified/ predicted suicide **3.5 years prior** to it happening
- Van Mens et. al (2020) found multiple risk factors for suicide and that 2/3 of patients saw their PCP within 4 weeks prior to their death

### Cerner suicide risk algorithm

- Created by Cerner and HealthE Facts
- Model discovered with RandomForest and LASSO methods (ML)
- Supervised algorithm
- Model rendered as a logistic regression equation
- Developed from over 900 US hospitals with electronic medical record data – 120k plus inpatient cases
- Deidentified charts of patients who died by suicide
- Over 50 variables in EMR data set identified
- Variables weighted with logistic regression determined most common variables that place a patient at high risk for suicide
- Incorporated into clinician workflows in EHR
  - At patient intake assessment
  - In subsequent serial ongoing assessments

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### Suicide risk prediction algorithm

- Initial thresholds established off previous data:
  - Low
  - Moderate
  - Moderate to High
  - High
  - Imminent

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### Logistic regression model

Early identification presents opportunity for reducing the likelihood of suicidal behavior through risk-reducing interventions

Patient...	enter	
Number of years with mental illness?	11	
Recent history of loss or bereavement? (Y/N)	N	
90-day weight loss more than 2% of baseline weight? (Y/N)	Y	
Number of O/P "no-shows" in past 90 days?	0	
Pessimism/Hopelessness (Beck Depression Inventory or equivalent)?	3	
Nightmares duration? (weeks)	0	
Insomnia duration? (months)	2	
Does the person suffer from delusions? (Y/N)	Y	
First-degree relative committed suicide? (Y/N)	N	
Suicidal ideation	3	

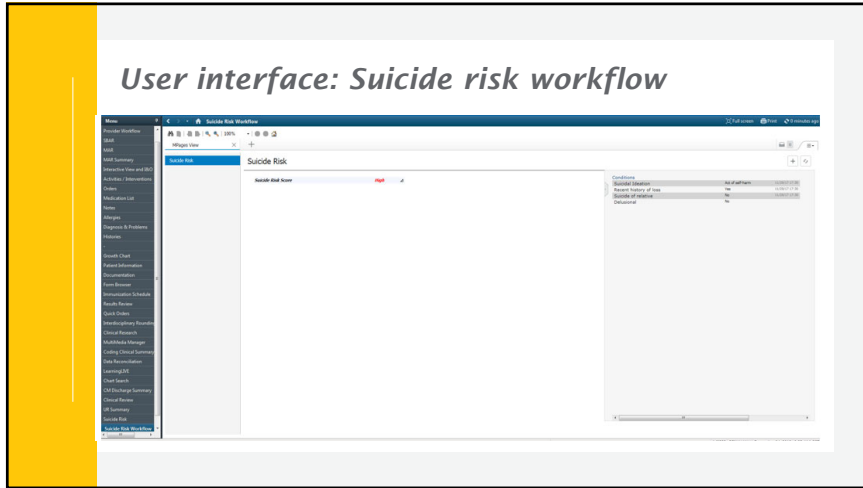
  

evaluate	results	
data complete?	Yes	
Likelihood of suicide attempt is...	Very High	48% ( 20% to 77% )

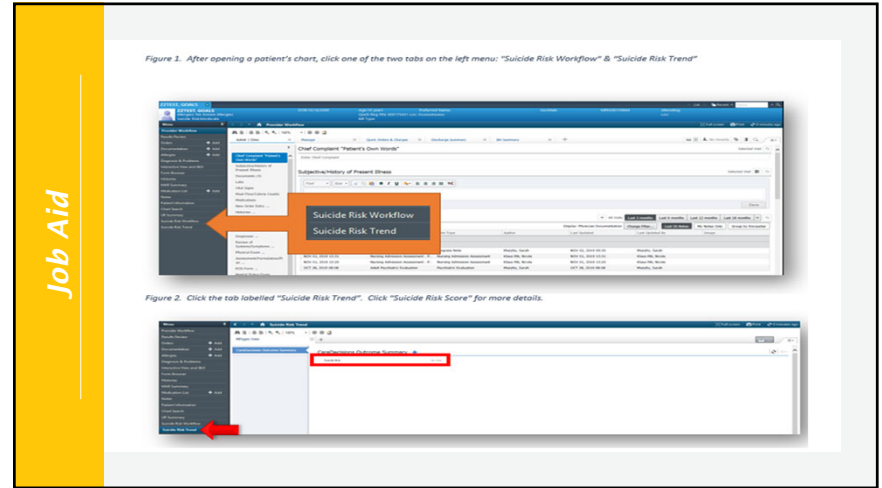
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### User interface: Suicide risk factors

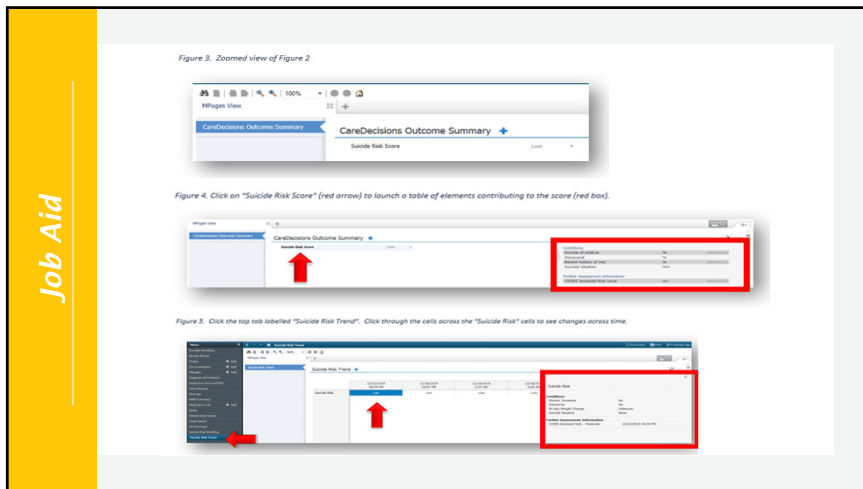
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### Validation with Rogers data

- Vast majority of the time the algorithm results were aligned with CSSRS and/or BDI9 Question
- A matrix comparing the Cerner algorithm's frequency of predicting risk levels of High (H) vs Not High (NH) to the two methods currently in place, BDI and CSSRS
- Of Cerner's 29 predictions of High Risk, 9 (31%) were predicted to be High Risk by BDI or CSSRS
- 69% of patients that Cerner found high risk were not found to be high risk by the CSSRS or BDI
- In summary this algorithm is another detection method, designed to aid in picking up on things that we may have missed

		CERNER	
		H	NH
BDI / CSSRS	H	9	46
	NH	20	334

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Job Aid

Job Aid

### Documentation expectations

Along with your daily note documentation, please check the suicide risk algorithm tabs

If the suicide risk trend and suicide risk score results are consistent with your clinical judgement	No need to document references to algorithm in your daily note
If the suicide risk trend and suicide risk score results are inconsistent with your clinical judgement	Please document in your daily note the rationale for why you disagree with the algorithm

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### Population screening

#### Connecting youth to care initiative

- Montana community with recent adolescent suicides
  - Four middle and high school screenings in rural Ohio, Montana
  - 518 students screened; completion rate 100%
  - Report arrives <1 minute after its completed to mental health treaters
  - 6% high risk; seen that day
  - 12% moderate risk; seen within three days
  - 82% low risk
  - No parental complaints and found several suicide attempts that were unknown
  - Screening package was eC-SSRS, PHQ-A, GAD-7, and WSAS-Y (social adjustment) with mean completion time of 8.2 min

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### Connecting youth to care:

Web-based screening  
5-7 minutes

Results within 1 minute to school staff

Same-day care for those with high risk  
↓  
Referral  
**REACTIVE**

Inform school Programming  
**PROACTIVE**

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### Montana Case Study

Start Date	End Date	External	PHQ-Scc	GAD-Scc	CD-RISC	Intervene
11/18/21 16:05	11/18/21 17:00	enbDK	11	8	24	ASAP
11/18/21 16:56	11/18/21 17:09	e2Wv1	24	15	12	ASAP
11/18/21 16:58	11/18/21 17:11	INDDK	6	6	14	ASAP
11/18/21 16:58	11/18/21 17:11	83SK	6	10	12	ASAP
11/18/21 17:00	11/18/21 17:12	NAWfs	16	13	7	ASAP
11/18/21 16:56	11/18/21 17:05	CmIk	3	3	16	Within three days
11/18/21 16:58	11/18/21 17:07	wnLIG	9	11	17	Within three days
11/18/21 17:00	11/18/21 17:08	EduP	10	9	29	Within three days
11/18/21 16:56	11/18/21 17:08	AcwSZ	12	17	36	Within three days
11/18/21 17:02	11/18/21 17:10	lEon	3	3	28	Within three days
11/18/21 17:00	11/18/21 17:10	rHUBk	12	16	15	Within three days
11/18/21 17:01	11/18/21 17:10	AGLDb	16	14	26	Within three days
11/18/21 16:56	11/18/21 17:00	qgPm	3	3	38	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:01	Clq2q	7	3	25	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:01	qK8Pp	3	0	25	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:01	8k8ME	0	1	40	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:02	9Eant	5	3	28	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:02	Rlu0D	3	0	38	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:02	paWJ	3	0	38	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:02	ad5vR	2	1	33	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:02	hccC	0	0	40	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:02	lPFSL	0	0	35	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:03	QDD44	4	8	32	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:03	Gvix2w	3	5	31	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:03	DLH8H	0	0	37	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:04	lA8ge	10	0	29	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:04	Nq06B	5	4	12	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:04	lyvN	0	0	37	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:04	329uG	4	3	22	Only as indicated by PHQ-A and GAD Scores
11/18/21 17:00	11/18/21 17:04	Tp7C	0	2	40	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:58	11/18/21 17:04	qwe33	1	2	36	Only as indicated by PHQ-A and GAD Scores
11/18/21 17:00	11/18/21 17:04	Uwikh	2	1	34	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:04	l3V9J	13	12	15	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:57	11/18/21 17:05	09f5S	0	0	30	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:59	11/18/21 17:05	V55ML	0	4	29	Only as indicated by PHQ-A and GAD Scores
11/18/21 16:56	11/18/21 17:05	qgP8a	2	0	28	Only as indicated by PHQ-A and GAD Scores

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*Time for questions and answers...*



**Q&A**

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*Where to get additional information...*

American Association for Suicidology  
[suicidology.org](http://suicidology.org)

CALM training  
<https://www.sprc.org/resources-programs/calm-counseling-access-lethal-means>

NIMH  
<https://www.nimh.nih.gov/health/topics/suicide-prevention>


SAMHSA  
<https://www.samhsa.gov/childrens-awareness-day/past-events/2019/resources-suicide-prevention>

Trevor Project  
[thetrevorproject.org](http://thetrevorproject.org)


Zero Suicide Institute  
[zerosuicideinstitute.com](http://zerosuicideinstitute.com)

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*About the presenters....*



**Hilary Boyd, MSN, RN, APNP, PMHNP-BC**  
 Ms. Boyd is a board-certified psychiatric nurse practitioner at Rogers Oconomowoc




**Jerry Halverson, MD, FACP<sub>psych</sub>, DFAPA**  
 Dr. Halverson is a board-certified adult psychiatrist and serves as the Chief Medical Officer for Rogers Behavioral Health



**Rachel Leonard, PhD**  
 Dr. Leonard is a licensed psychologist and serves as Executive Director of Clinical Strategy for Rogers Behavioral Health

*Call or visit:*  
 800-767-4411 | [rogersbh.org](http://rogersbh.org)



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