

Inpatient psychiatry cannot be the only answer: Alternative approaches to disposition following severe suicide attempts

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INTRODUCTION:

Suicide rates increased 36% between 2000-2021, accounting for over 48,000 deaths in 2021 (CDC, Hedegaard 2018). Risk factors for suicide are often divided into static and dynamic factors. Static risk factors are unchanging and not necessarily mitigatable, such as gender, prior suicide attempts, history of trauma, etc. Dynamic risk factors are mitigatable thus psychiatric treatment often focuses on these factors, such as current symptoms of panic, psychosis, depression, medication nonadherence, poor support, and active substance use.

Inpatient psychiatry is not always a disposition option for medically complex patients that may require additional neurologic or physical rehabilitation services following a suicide attempt. In our patient population, who now have significant medical morbidity following suicide attempt, we argue that a large component of their suicide risk mitigation is preparing them for immediate medical rehabilitation and not psychiatric admission.

How can we mitigate suicide risk if inpatient psychiatric hospitalization is not an option?

METHODS:

The CL psychiatry team conducted clinical interviews, performed chart review, gathered collateral from family and outpatient providers, monitored serial cognitive assessments, and reviewed static and dynamic risk factors for suicide in three individuals admitted to a Level 1 trauma center for injuries sustained after high lethality suicide attempts. Post-discharge chart review was also conducted for each case. Below is a summary of the cases and injuries sustained.

Case 1: 21-year-old male with self-inflicted gunshot wound to the head. Per EMS, initial Glasgow Coma Score of 15. Required emergent craniotomy for intracranial hemorrhages and increasing confusion. Cognitive testing showed moderate cognitive deficits, and he required TBI Neuro rehabilitation.

Case 2: 22-year-old male attempted suicide via skateboarding off a of a parking garage floor (40+ ft). Sustained numerous injuries including pelvic, rib, and multiple long bone fractures and small right subdural hematoma. He required intensive physical rehabilitation prior to psychiatric partial hospitalization program (PHP).

Case 3: 28-year-old male attempted suicide via jumping off a 4-story balcony and sustained numerous fractures with resulting pulmonary embolism requiring 13-day intubation and ICU stay. He required physical rehabilitation prior to referral for PHP.

Previous suicide attempt/prior self-injurious behaviors
Internalizing psychopathology (depression, anxiety, emotion dysregulation, insomnia, hopelessness, trauma-related symptoms)
Externalizing psychopathology (aggression, impulsivity, violence, incarceration, substance use)
Chronic medical illness (cancer, terminal illness, chronic pain, autoimmune conditions, migraines)
Ongoing substance use
Family history of suicide in first degree relative
Exposure to suicidal behaviors from peers, classmates
Demographics (age, ethnicity, member of LGBTQ+ community, marital status, employment, immigrant, minority population)
Psychosis (disorganization, command auditory hallucinations, delusions)
Social factors (stressful life events, financial/occupational loss, divorce, grief, abuse, isolation)
Cognitive difficulties (cognitive decline, level of intelligence, traumatic brain injury)
Access to lethal means (firearms, prescription drugs/substances/alcohol)

Table 1. *The order of suicide risk factors does not confer degree of importance. However, per the World Health Organization, the strongest risk factor for suicide is a previous suicide attempt (2015). This list of known suicide risk factors highlights the importance of a robust psychiatric evaluation including chart review, collateral from outpatient providers and family, cognitive testing, lab work, and patient interview to adequately address suicide risk.

Table 2. Comparing Static and Dynamic Risk Factors Between Cases and Specific Mitigating Actions For Each Case.

	STATIC RISK FACTORS	DYNAMIC RISK FACTORS	MITIGATING ACTIONS
CASE 1	<ul style="list-style-type: none"> Caucasian Male Single 	<ul style="list-style-type: none"> Access to weapons Substance Use (alcohol) Cognitive impairment 	<ul style="list-style-type: none"> Firearm confiscated by police Consult to Substance Abuse Team TBI neuro rehab and subsequently moving in with father for 24/7 supervision
CASE 2	<ul style="list-style-type: none"> Caucasian Male Single Potential cognitive impairment (per CT imaging and MOCA) Previous self-injurious behaviors and prior suicide attempts Recent interpersonal stressors (fighting with mother, friends, recent breakup) History of witnessed trauma 	<ul style="list-style-type: none"> Undertreated mental illness (Schizoaffective Disorder Bipolar Type) with refractory auditory hallucinations Substance Use (cannabis, psilocybin, LSD, benzodiazepines) 	<ul style="list-style-type: none"> Coordination with physical rehab for continued psychiatry involvement Coordination of PHP following physical rehab Coordination with outpatient provider Living with mother for 24/7 supervision/support Psych OT to bolster coping skills Consult to Substance Abuse Team Safety Planning
CASE 3	<ul style="list-style-type: none"> Caucasian Male Single Previous self-injurious behaviors (cutting) and prior suicide attempts 	<ul style="list-style-type: none"> Untreated mental illness (Bipolar Disorder with Psychotic Features) Medication nonadherence 	<ul style="list-style-type: none"> LAI for medication adherence Medication supervision in physical rehab Coordination of PHP following physical rehab Returning to live with dad for supervision/support Psych OT to bolster coping skills

Table 2. Compares static and dynamic risk factors for each high lethality suicide attempt case where the patient could not go directly to inpatient psychiatry due to their physical and/or neurologic injuries. See the "Mitigating Actions" column for steps the team took to directly attenuate suicide risk by focusing on addressing dynamic risk factors.



RESULTS:

The patients in these clinical cases were unable to be admitted to inpatient psychiatry because of injuries sustained from their suicide attempts. Given that only 2.7% of U.S. hospitals have a Medical Psychiatry Unit (Wittnik, 2023), alternative strategies for addressing suicide risk must be considered. Additionally, chronic pain and comorbid medical conditions are themselves independent risk factors for suicide, making it critical to appropriately address resultant somatic injuries while also providing psychiatric care to these individuals.

CL collected data from medical records, the patients, families, and outpatient providers to identify mitigatable risk factors for suicide. We then coordinated with primary medical teams, occupational therapists, family members, outpatient psychiatry providers, and rehab staff including physicians and pharmacists to ensure that all parties were informed about and able to participate in the plans made to mitigate these risk factors. This ensured that patients received comprehensive, wrap-around care and that both psychiatric and medical needs were appropriately addressed in disposition planning. Creativity and collaboration were key in mitigating suicide risk in this medically and psychiatrically complex patient population.

CONCLUSIONS:

The benefits of inpatient psychiatric admission include being in a monitored environment 24/7 with follow-up services arranged prior to discharge. However, suicide risk remains high even after inpatient psychiatric admission (O'Connell, 2021). CL arranged for appropriate psychiatric treatment while patients were receiving care for their medical injuries and appropriate psychiatric follow-up after rehab. Collaborative care is crucial in mitigating suicide risk factors and determining placement for patients unable to go to inpatient psychiatry units.

References:

- Increase in Suicide Mortality in the United States, 1999–2018, Holly Hedegaard et al, 2020
- Risk of suicide after discharge from inpatient psychiatric care: a systematic review, Patrick H O'Connell et al, 2021
- Risk factors for suicidal thoughts and behaviors: A meta-analysis of 50 years of research, Joseph C. Franklin et al, 2017
- Suicide Risk Assessment and Prevention: Challenges and Opportunities, Eileen P. Ryan et al, 2020
- The Undervalued Potential of Medical-Psychiatry Units to Improve Care for People with Severe Mental Illnesses, Marsha Wittnik et al 2023.
- Suicide Rates After Discharge From Psychiatric Facilities, Daniel Thomas Chung et al, 2017.