Treatment of Suicidal Behavior for Inpatients

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Abstract

Serious suicidal behavior may lead to admission to an inpatient unit, and this usually happens when professionals do not see any other alternative for treatment in the community, because of the severity of suicidal intent. Questions arising in

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this situation would be: When do the risks justify admission? Does admission improve safety or will it increase suicidal behavior? What are treatment options in an inpatient unit that cannot be offered in the community? When is a patient ready to be discharged?

In this chapter we discuss the timing of an admission and where (open or locked ward) and which arguments can be used to decide on the appropriate setting (voluntary/detained).

We discuss the advantages and disadvantages of admission and means to improve safety of the patient. We give a practical, clinically used outline of a phased-care-plan, which is used on a number of acute admission wards. We present which considerations play a role when we make critical decisions about a patient's safety. This chapter combines scientific evidence with clinical experience.

Keywords

Suicidal behavior · Admission · Inpatient setting · Discharge · Severe suicidality

Introduction

Most patients who complete suicide were not known or assessed by either mental health services or professionals (including professionals from services other than mental health services, with authority to admit suicidal patients) prior to their death [1].

Within mental health services, we assess suicide risks. However, the group of suicidal people assessed by mental health services differs from the group of people who complete suicide and are not known to mental health services. For example, looking at gender and suicide, men are, for example, less often known with a psychiatric diagnosis when they die by suicide [2].

Obviously, indicators of suicidal behavior need to reach the threshold for referral to mental health services, and if the condition is serious enough to warrant admission to an inpatient unit for suicidal behavior, this needs to be arranged through mental health services.

Some patients are admitted for other reasons than suicidal behavior (e.g., serious psychotic symptoms) and, however, can be suicidal without the assessor being aware of this. Patients can become suicidal during the course of admission even when the reason for admission was not related to suicidality, and they were not suicidal at the point of admission. Because of this, one would argue that there needs to be awareness of suicidal behavior and its' progress in time, not just at the point of admission but also during admission.

A suicidal person will only be assessed or treated by mental health services after their suicidality has been recognized. We need to be aware though that – even within mental health services – suicidal behavior can be missed and there is limited attention for detailed questioning about suicidality [3, 4].

People who are admitted to an inpatient unit because of their suicidal behavior are assessed to be severely unwell and at risk of acting on their suicidal thoughts or plans.

When a patient presents with serious suicide risks, the crisis services are asked to do an assessment in most cases, and this often results in admission [3].

There are a number of therapeutic options after suicidal behavior has been assessed, with increasing level of input:

1. Watchful waiting
2. Return to referrer
3. Regular follow-up within mental health services to be arranged
4. Urgent care
5. Intense daily care in the community
6. Intensive home treatment
7. Voluntary admission
8. Involuntary admission with limited restriction of liberty
9. Involuntary admission without liberties or leave arrangements
10. Involuntary admission with strict safety measures and possibly consequent permanent observations

What ultimately leads to admission? In this chapter we show what the criteria are; however, we also need to consider the "less scientific" practical reasons affecting the choice for admission. On most admission wards, there is no tradition of research, and the approach is often practical rather than scientific. Because cultures on different admission wards vary, it is difficult to compare wards, and there is little uniformity around management of suicidal behavior.

The severity of suicidal behavior (or level of suicide risk) often triggers admission; however, this "severity" is hard to measure, and rating scales are not often used.

Other factors play a role in admission. Defensive practice may lead to responsibilities and risks being shifted to the admission ward. An admission reduces the risks for professionals in the community, who will have demonstrated that "action has been taken" by having the patient admitted. In case of a fatal outcome, judgment will be harsher in situations where little or no action has been taken and milder when professionals have tried to do "something."

There may be excessive pressure from family and loved ones of other third parties when admission criteria have not been met. Other professionals, for example, the police, may put pressure on mental health services to admit patients and show little understanding when admission does not happen. Some patients are unable to communicate their distress effectively and cause significant disturbance in the community by acting out (see other chapter de Winter et al. in this book).

Sometimes a patient needs to be removed from an untenable situation. The community team may be exhausted or burnt out, and admission offers breathing space for the team that has deal with pressure caused by someone presenting with chronic suicidal behavior.

Of course, there can be a mix of different circumstances, but it is important to be aware that it is not just one rational, well-reasoned argument that leads to admission and it is not a single but several factors affecting the reason for admission.

Bed capacity plays an important part in decisions to admit, and an increase in the number of beds often reduces the barrier to admission. Perhaps financial motives or incentives should not be mentioned; however, the threshold for admission may be lower when bed occupancy is low. Newly formed CRHT and/or IHT teams will lead to a gradual reduction of beds and lower number of admissions, and this may result an increased barrier to admission.

To summarize, many factors lead to admission; however, we do not know if admission increases patient safety and improves suicidal behavior or whether other factors play a role.

Additionally (except for specific academic or specialized clinics), there is a limited number of specially trained staff to detect and manage suicidal behavior on admission wards, while ideally this is exactly the location where more specialized treatment and management of suicidal behavior should be offered (e.g., Collaborative Assessment and Management of Suicidality (CAMS), Attempted Suicide Short Intervention Program (ASSIP), trauma therapy, dialectical behavior therapy (DBT), cognitive behavior therapy (CBT), etc.).

Admission wards often focus on safety and risk reduction when treating suicidal symptoms, and treatment is according to a medical model with little eye for detail when it comes to the psychosocial circumstances and drivers for suicidal behavior. Underlying symptoms like depression, insomnia, and/or psychotic symptoms are often treated with psychotropic medication.

As with most psychiatric illnesses, time heals. However we also know that admissions can exacerbate symptoms and cause a deterioration in mental state. Admission wards are conglomerations of unwell people, and often there is a wide variety of symptoms, for example, serious psychotic symptoms, mania, drug-induced comorbidity, and/or undefined psychiatric symptomatology [5].

In the abovementioned group of inpatients, suicidal behavior may have been part of the reason for admission; however, admission in most cases has been indicated for other reasons. Admission to a psychiatric ward may emphasize the stigma of "being ill" or "being a mental case."

Little research has been done about the efficiency of admissions. There has been no randomized controlled trial looking at patients meeting the threshold for admission for "suicidality," using a set of clinical indicators. Any study design looking at admission/no admission for suicidal patients who would meet criteria for admission, and consequently look at the difference in fatalities between both groups, testing the hypothesis that "admission reduces the number of fatalities for suicidal patients," gambles with patient safety and patients' lives.

On top of this, large numbers of patients are needed for research of this kind, and suicide (fortunately) is relatively rare on admission wards. Bearing in mind that little research is done on admission wards anyway, a proposal for the abovementioned kind of research will most likely not pass criteria of any ethics commission.

Over the last two decades, there has been a transition from inpatient and institutional care to community care, aided by IHT (intensive home treatment) or CRHT (crisis resolution and home treatment) teams. Based on changes in outcome, conclusions about the efficiency and value of admissions can be made.

We are unable to give reliable answers in this chapter about the best choices and admission indicators for suicidal patients. We want to try to offer a more rational approach though for the admission of suicidal patients in this chapter.

It is important to think carefully about impact on and consequences of an admission for suicidal patients or patients who present with dangerous suicidal behavior.

We also need to be aware that admission offers false sense of security and may lead to iatrogenic damage. At times though, we may find ourselves with our backs against the wall and have no other choice than to admit, which is in this case a "last resort" solution.

Indication for Admission

At what point has the risk of suicide reached a level of severity and acuteness to warrant admission?

A meta-analysis showed psychiatric inpatients (including those on approved leave and those absent without leave) had a pooled suicide rate of 147 suicides per 100,000 inpatient years, which is more than 12 times the global population suicide rate [6].

This means there is evidence of an association between current – or recent – psychiatric inpatient admission and increased suicide risk. This association is assumed to be due to the selection of patients with increased suicide risk and subsequent protective properties of admission for suicide [7].

In a previous study, detailed information from psychiatric emergency service assessments were recorded during a 5-year period; 14,705 assessments were included. Suicidal behavior was assessed in 32.2% of the cases; 42.6% of the suicidal patients were admitted following assessment; and of these patients, 15.2% were formally detained [3].

Of course, bed availability is one of the most important factors for admission rates, because of the rule of "supply determining demand."

Offering an admission can also raise expectations with patients, family members, mental health workers, and/or other medical personnel that unfortunately cannot be met.

Professionals, loved ones, and third parties involved with the patient may decide (or exert pressure) to admit, motivated by feelings of powerlessness or frustration. The decision to admit may also stem from more defensive medical practice, transferring the responsibility from the outpatient to the inpatient team.

If expectations are not met or information about what is available in the inpatient unit is unreliable, the resulting disillusion can contribute to progress into hopelessness and result in negative effects on future treatment. The procedures surrounding

admissions, especially if they are involuntary, can lead to the patient becoming suspicious of mental health professionals. The main responsibility of the assessor is to strike a balance, both for the period before and during admission, and be aware of the effect of professional choices on the autonomy of the patient.

Post-discharge, difficult choices await us when we reach the point where we need to balance the risks and the negative impact of reduced autonomy. It has not been proven that admitting patients can prevent suicide, and it is as described before, ethically not possible to conduct a well-randomized research into the preventative or protective properties of inpatient admission [8].

Even though there are no reliable tests available to predict acute suicidal behavior, fortunately, we have some indication of the contributing factors to suicidal behavior, thanks to epidemiological studies [9].

Epidemiological research found many risk factors for suicidal behavior; however – during assessment of an acutely suicidal patient – these risk factors cannot predict the risk of immediate, life-threatening suicidal behavior in the days following assessment [10]. "For a good assessment you need to rely on recognition, knowledge, clinical experience and intuition." The guideline below offers guidance on when to admit, based on criteria from American guidelines (Table 1) [11].

An overwhelmed support system (family, friends, neighbors) can be an indication for admission. When a support system has decompensated and is unable to participate in the care of the patient, admission is necessary. Exhausted carers sometimes attempt to push for admission and are unable to look at alternative solutions. An absent support system for the patient to fall back on in times of crisis is an indication for admission [3].

Involvement of Carers

Involvement of carers (family, friends, neighbors) in treatment and diagnosis of suicidal behavior is important; however, this often takes the back seat. We want to emphasize that it is essential for mental health professionals to do the outmost effort to involve carers in treatment and diagnosis. Refusal from the patient for carers to be involved needs to be challenged by professionals. With the establishment of a therapeutic relationship, we often find that a patient will agree for family to be included, even after initial refusal.

When there is no support system, the GP should be contacted.

Case *A 47-year-old man has tried to hang himself. He was accidentally found and required more than 15 min of resuscitation. It is not possible to get a good history from the patient. He states it was an accident and denies suicidal intent. He complains that everything inside his stomach has been destroyed and that he does not want any help. The patient recently divorced and is not in contact anymore with his ex-wife. The patient presents with severe psychomotor retardation. He stopped working in the restaurant that employed him, is not eating, does not want to do anything, and spends the day in his chair, doing nothing. He is known to health*

Table 1 Guidelines for selecting a treatment setting for patients at risk for suicide or suicidal behaviors

Admission generally indicated
After a suicide attempt or aborted suicide attempt if:
Patient is psychotic
Attempt was violent, near-lethal, or premeditated
Precautions were taken to avoid rescue or discovery
Persistent plan and/or intent is present
Distress is increased or patient regrets surviving
Patient is male, older than age 45 years, especially with new onset of psychiatric illness or suicidal thinking
Patient has limited family and/or social support, including lack of stable living situation
Current impulsive behavior, severe agitation, poor judgment, or refusal of help is evident
Patient has change in mental status with a metabolic, toxic, infectious, or other etiology requiring further workup in a structured setting
In the presence of suicidal ideation with:
Specific plan with high lethality
High suicidal intent
Admission may be necessary
After a suicide attempt or aborted suicide attempt, except in circumstances for which admission is generally indicated. In the presence of suicidal ideation with:
Psychosis
Major psychiatric disorder
Past attempts, particularly if medically serious
Possibly contributing medical condition (e.g., acute neurological disorder, cancer, infection)
Lack of response to or inability to cooperate with partial hospital or outpatient treatment
Need for supervised setting for medication trial or ECT
Need for skilled observation, clinical tests, or diagnostic assessments that require a structured setting
Limited family and/or social support, including lack of stable living situation
Lack of an ongoing clinician-patient relationship or lack of access to timely outpatient follow-up
In the absence of suicide attempts or reported suicidal ideation/plan/intent but evidence from the psychiatric evaluation and/or history from others suggests a high level of suicide risk and a recent acute increase in risk
Release from emergency department with follow-up recommendations may be possible
After a suicide attempt or in the presence of suicidal ideation/plan when:
Suicidality is a reaction to precipitating events (e.g., exam failure, relationship difficulties), particularly if the patient's view of situation has changed since coming to emergency department
Plan/method and intent have low lethality
Patient has stable and supportive living situation
Patient is able to cooperate with recommendations for follow-up, with treater contacted, if possible, if patient is currently in treatment
Outpatient treatment may be more beneficial than hospitalization
Patient has chronic suicidal ideation and/or self-injury without prior medically serious attempts, if a safe and supportive living situation is available and outpatient psychiatric care is ongoing

services with pulmonary problems; however, no physical cause has been found for the gastrointestinal complaints he is experiencing. When his 19-year-old son is contacted, he expresses grave concerns about his father. He can see his father deteriorating and is unable to take care of him. The team decides to admit the patient.

Open or Locked Ward?

Patients who can safety plan are usually admitted to an open ward. For a patient to be admitted to an open ward, professionals need to be able to trust a patient, and the patient needs to be able to trust themselves. As said before, this trust is usually based on recognition, knowledge, clinical experience, and intuition. Patients admitted to an open ward often demonstrate a high level of functioning and an absence of severe mental illness (e.g., a psychotic depression). Admission of patients with personality disorder may be provided as a brief admission (or respite admission) [12]. Admission of patients with depression needing pharmacological treatment will – most likely – take a couple of weeks. Serious agitation and side effects at the start of an antidepressant are reasons for extended admission [13]. When it is not possible for a patient to guarantee their safety or to safety plan, they need to be admitted to a locked ward.

Suicidality is encountered very often on a locked ward. The risk of suicide in this environment is 40–50 times higher than in the general population [14].

But in another study, no differences between suicide rates were found for an open or closed ward [15].

Continuation of Case *The patient shows symptoms of a severe depression with suicidal intent. On top of this, the patient is minimizing and dismissing his symptoms. His son is very concerned and at the end of his tether. Patient is offered admission to a locked word so he can be supervised, diagnosis can be completed, and treatment can be started.*

Voluntary or Detained?

A patient can agree to voluntary admission to a locked ward. “Voluntary” needs to be put in perspective because when a suicidal, voluntary patient requests discharge and cannot keep themselves safe, a detention can still be applied for. In this situation, it is possible to discuss the precise reasons for detention with the patient (and carers) in a transparent way, and the temporary nature of a detention needs to be emphasized. Involuntary admissions can be extremely traumatic and damaging, and when possible the “least restrictive option” should be considered. Autonomy and the therapeutic relationship have to be maintained throughout the process of assessment and admission.

We do not know whether involuntary admission protects against suicide because we do not know what would have happened if the patient had not been detained.

It is not ethical to conduct research with half of suicidal patients admitted to a ward and the other half not and look at differences in suicidal behavior of both groups [16]. We are convinced though that if it were not possible to admit patients to a locked ward, the number of suicides would be much higher.

Continuation of Case *The patient refuses admission and states that there is nothing wrong with him. Detention is recommended, because of the unequivocal diagnosis of depression and because of the risk to self. This is discussed with the son who agrees with an involuntary/formal admission.*

Restrictions of Liberty

Restrictions of liberty within psychiatry are strictly regulated in most European countries and the USA, and in most countries, those regulations are applied when there is serious danger because of psychiatric symptoms and when – at the time of suicidal behavior – the risk of suicide/death is high. In case of serious suicidal behavior with lack of insight and inability to consent and/or an unsafe situation at home, chances of involuntary admission are high if patients refuse to go into hospital on a voluntary basis.

Regulations about detention vary in different countries; however, generally there is a distinction between short(er) detentions for assessment and long(er) detentions for treatment.

While detained, patients still have rights, including rights around leave and liberties. These can only be restricted when risks are considered too high and too numerous, including the risk of a deterioration in mental health should the patient be allowed to leave hospital. Restriction of liberties has the potential to cause collateral damage when a suicidal patient has had previous traumatic or unpleasant experiences with detention and will try anything to prevent admission. Generally, it is important for professionals to show restraint when applying for involuntary treatment and admissions.

Continuation of Case *5 days into admission, the patient is more able to talk about his emotions and motives. The detention has been finalized. A diagnosis of depression with mood-congruent psychotic symptoms has been confirmed. A treatment and care plan has been discussed during a meeting with patient and his son, and it is decided that ECT will be given. The patient is not granted leave and is on constant observation.*

Rescinding of Detentions

Usually a patient is detained because of the risk to self and others, and mental health advocates and tribunals monitor the validity of detention.

When we are dealing with personality disorders, detentions may complicate matters rather than simply providing safety and an opportunity to treat. This occurs when suicidality is used by a patient as a way to communicate feelings of distress, perceived powerlessness, frustration, and anger, whether consciously or subconsciously [17] (or see other chapter de Winter et al. in this book).

If a patient cannot guarantee their safety – which may change or improve in due course – the only choice left may be to detain the patient, if only for a brief period; the family though may not agree with a brief detention or with rescinding the detention within a short period of time. For this group of patients, admission can be perceived as a confirmation and justification of their suicidal behavior, and – despite the risks of suicidal plans and intent – it is preferable for those patients if admission is kept brief. These ambivalent and complex situations can lead to uncertainty and resentment from the family, because patients clearly express that things are not well and put themselves at significant risk while professionals want to keep the admission as short as possible. Families are often at the end of their tether. Legal professionals involved in the procedure may feel that a patient is seriously ill and may not wish to rescind the section. To rescind a section may seem illogical but from a clinical point of view may be the best solution in the abovementioned situation. It is the responsibility of professionals to explain this clearly to the patient and their family.

Characteristics of Suicidal Patients in an Inpatient Unit

Research shows that for 29% of (psychiatric) admissions, suicidal behavior is the main driver. For 11% of the admissions, the risk of suicide is considered to be so severe that it warrants constant 1:1 observation. Most patients admitted for suicidality have a diagnosis of depression (often with psychotic symptoms). Frequently it is a first presentation patients are younger and more often female. They tend to be in employment, often end up in seclusion (in the Netherlands), and more often are recommended for/treated with electroconvulsive therapy (ECT) [5].

Treatment on Admission

Both in open and locked wards patient are treated according to guidelines. In locked and/or more secure wards, treatment tends to be more assertive for both pharmaceutical and biological treatment (like ECT).

Sometimes the route through the treatment pathways is accelerated, and some of the steps are skipped. For example, in case of a psychotic depression with psychotic symptoms and severe suicidality, treatment with ECT is often initiated quicker than advised by guidelines.

Continuation of Case *There is no improvement and patient remains suicidal while suffering with symptoms of a psychotic depression. A tricyclic antidepressant is*

started without effects being visible after 4 weeks. ECT is discussed with the patient and his son and they both consent. After four sessions, the retardation/inhibition is reduced, and the patient seems less depressed. A different TCA is prescribed, and within a couple of weeks, the patient recovers.

Suicidal patients with a bipolar affective disorder are more often treated with lithium, while suicidal patients with schizophrenia are more often treated with clozapine [18]. Starting lithium or clozapine quicker than advised by guidelines may happen because some research shows evidence of lithium and clozapine having a protective effect against suicide. For suicidal patients with other psychiatric diagnosis including anxiety disorders and personality disorders, the specific guideline needs to be followed.

Psychotherapy, if part of a guideline, more often than not does not happen during admission because patients are too unwell. Most admission wards do not have professional psychotherapeutic facilities, and adequate psychotherapeutic treatment can only start in the community. Because of this, underlying cognitive processes leading to suicidality, sustaining suicidality, or worsening suicidality are not addressed. Treatment with medication seems to be the focus when treating depression in an inpatient ward, while psychological treatment for suicidality is ignored. When – at the point of discharge – the depression has been treated and suicidality is left untreated, suicidality is likely to crop up again as an issue shortly after discharge.

Phased Treatment and Safety Plan on Acute Ward

Acute admission wards need to guarantee the safety of patients; however, assessing the need for constant observation or transfer to a locked ward can be difficult for suicidal patients, and assessment of suicide risks needs to be done throughout admission, not just at the point of admission and discharge. To improve the suicide risk assessment, we advise to work with a “phased treatment/safety plan.”

A “phased treatment plan” is a dynamic process requiring quick and appropriate action.

The importance of a phased safety plan is twofold: firstly, on admission suicidality is explicitly explored and scored; secondly, it allows for uniform agreements between professionals responsible for treatment and for information sharing with carers/next of kin.

Several phased treatment plans are available. We discuss the phased treatment plan as used on a number of acute admission wards. This plan describes five phases describing the current suicidal ideation, plans, and intent. The higher the phase, the higher the level of observation required as used in the Netherlands [8] (Table 2).

Table 2 Phases during admission in a closed ward

Phase 5: Separation and camera observation	
The risk of suicide is assed as "very high." It is not possible to make a reliable safety plan around suicide, allowing "within eyesight observation" on the ward	
This phase can also be used for patients who are emotionally detached/aloof and show inexplicable and unpredictable changes in their mental state	
When patients are secluded because of suicidality, there should be constant camera supervision. Images from the camera need to be transmitted to central nursing posts	
Patients need to be reviewed briefly every hour. Separation should be as brief as possible and not last beyond half a day. When a patient is mobilized, this needs to be recorded on a standardized form	
Phase 4: Observation at planned time intervals	
4a	No liberty and permanent observation
4b	No liberty, contact with staff at least every 15 min
4c	No liberty, contact with staff at least every 30 min
4d	No liberty, contact with staff at least every 60 min
Suicide risks are assessed as "high." It is not possible to make a reliable safety plan around suicide allowing "within eyesight" on the ward. This may require for the patient to be within eyesight of the nursing staff during handovers. Only when appropriate and safe agreements about a safety plan can be made with the patient, the "within eyesight" observations can be reduced to 1:15, 1:30, or 1:60. The treatment team makes the decisions about the level of observation, based on a clinical assessment of the suicide risk. The nursing team proactively initiates a face-to-face contact with the patient at agreed times. Observation is noted on a standardized form. It is important to realize that 1:1 observation can only be offered if there is enough staff. If this is not the case, the patient should be put on Phase 5 observation	
Phase 3: No observation, no liberty on a locked ward	
This phase can commence when it is possible to safety plan around suicide and the patient is not emotionally detached. Risk is assessed as high, and safety of the ward is required. The patient has no leave from the ward	
Phase 2: No observation, leave off the ward	
When there is no indication for acute risk of suicide or when the patient is able to safety plan, Phase 2 can be commenced. The patient can agree with nursing staff about time spent off the ward. It may be possible for a patient to have trial leave at home for part of the day	
Phase 1: No observation, ready for discharge	
If there is no evidence of suicidality and the patient is able to safety plan while admission does not offer further benefits for recovery, the patient can be discharged	

Application of Phased Treatment and Safety Plan

On admission, the patient will be mostly assessed by a medical professional, who is usually accompanied by a nurse. Assessment of suicide risk is part of the mental state examination.

To assess suicide risk, stressors and vulnerability for suicide need to be reviewed; additionally, preparations made by the patient for a successful suicide need to be recorded. It is advised to get a detailed history of perceived sense of "entrapment." Recent stressors may lead to emotional "tunnel vision," resulting in the patient not being able to see any solution other than suicide [19].

Cases: Continuation of Case *On the day of admission the nursing staff finds the behaviour of the patient odd. He appears frightened when he sees them. In conversation he indicates that he feels he cannot go on and the only solution is to die. A noose is found in his possession. Patient indicates that he does not know how he can proceed; he is frightened and wants his sleep to improve. He cannot safety plan because he does not trust himself and –as mentioned before- ECT treatment is arranged. It is decided for patient to be placed in 'Phase 4a' with 1:1 observation (son is informed about this). He is prescribed sleepmedication and a nurse stays in his room during the night. The room has been completely searched and no contraband has been discovered. The patient manages to sleep. The next day –after a good nights' rest- he is able to safety plan despite still feeling suicidal; he is given follow-up ECT.*

Patient is put in Phase 4b. Every 15 min he is seen by staff, also during the night. He recovers quickly, and the observation level is gradually reduced. Once in Phase 4d and able to explain to his psychiatrist that things are alright and he does not want to die – despite not knowing how things will be outside of the hospital – he is placed in Phase 3.

The risk assessment is based on history and collateral history, and a patient is put on the appropriate phase accordingly. Preferably this happens with patients' consent and with involvement of the patients' family and professionals in the community. If the patient is not under the care of a mental health community team, it is advisable to contact the GP.

The phase is recorded in the (electronic) patient file with the color of the phase and – when in Phase 4 – the observation times. The plan should be updated and handed over through a digital information system. This can be in the form of a "Digi-board" which can be projected on a screen. At every handover there is an overview of the phase and the opportunity to adjust, while adjustments need to be discussed and agreed within the team. Nurses will immediately know what is expected of them when they see the code with regard to observation levels. There is also a verbal handover between lead practitioner and nurses. The "Digi-board" is used during morning handovers. If the phase is changed, an immediate digital adjustment can take place. This way, professionals who are not able to attend the handover will still be up to date about changes.

Discharge

A patient can be discharged when safety concerns are not a reason for admission anymore. Discharge is usually after a multidisciplinary meeting has taken place and discharge has been discussed with the referring team. Sometimes the (temporarily) increased risk of suicide triggered by stress caused by discharge may be overlooked by the community team. The community team responsible for the care after discharge needs to be informed of any increase in suicidal behavior as a response to a change in environment.

Discharge is related to a high number of deaths in the early post-discharge period, which has resulted in recommendations of follow-up within a week [20].

Even when a patient does not want further treatment within mental health services, the discharge team needs to do a serious effort to arrange an outpatient appointment. Suicidal behavior needs to be addressed in this appointment. The GP and carers/next of kin need to be informed explicitly if further treatment in MHS is not possible.

Characteristics of Suicides in Mental Health

Between January 1999 and December 2012, we collated data of all patients who were treated by *Parnassia* in The Hague (a mental health trust) and died by suicide. (After 2012, the inspectorate protocol changed, and not all suicides needed to be reported anymore.)

These reports were supplemented by patient record files [21].

Data was anonymized and registered in a SPSS database (version 23.0).

Of 314 suicides, 27.4% were admitted (Table 3).

The majority of patients who were admitted and died by suicide did their fatal suicide attempt while on leave or not on the ward. Fatal attempts during inpatient admission were not significantly more often done in a locked ward (chi-square 3.186, Df = 1, $p = 0.074$). Of the patients who made a fatal attempt during admission, the majority died by hanging (Table 4).

Table 3 Suicides in mental health and proportion of suicides during admission

Setting	Number	Percentage	N suicides on ward	% suicides on ward
Admitted	86	27.4%	29	9.2%
Closed ward	*(36)*	*(11.5%)*	*16*	*5.1%*
Open ward	*(50)*	*(15.9%)*	*13*	*4.1%*
Non-admitted	228	72.6%		
Total	314	100%		

Table 4 Method of suicide on ward during admission

Method of suicide on ward	Number
Hanging	22 *(75.9%)*
Strangle	2 *(6.9%)*
Cutting	2 *(6.9%)*
Intoxication	2 *(6.9%)*
Jumping	1 *(3.4%)*
Total	**29 *(100%)***

The number of patients admitted during the 13-year episode was around 31.200, and the calculated suicide rate is around 275 suicides per 100,000 inpatient years, approximately 1.7 times higher than the rates from Walsh et al. [6].

In recent years, there have been technical modifications and adjustments to the ward environment, in order to reduce opportunities for hanging (reducing ligature risks). The most important tool to prevent suicide is to make the inpatient environment ligature free and to equip an inpatient setting in a way that – architecturally and technically – there is no opportunity for any part of the ward to be used as a "hanging tool." Wards were also provided with "unbreakable glass" and located on the ground floor.

To reduce the risk of jumping, it is important not to locate wards on higher floors and, if this cannot be avoided, to provide safety nets and to ensure no other methods are available. We all know though that determined patients will always find other creative ways to harm themselves [22].

When to Admit and When Not to Admit

Sometimes "careful watching" is the best form of action.

Some situations though can trigger suicidal behavior and increase the suicide risk. Deprivation of liberty can have iatrogenic consequences including a disruption of the therapeutic relationship, leading to disengagement after discharge. Taking away a patients' authority can hinder recovery, and time spent in seclusion may increase low mood/a mood disorder. Generally, professionals find "careful watching" difficult. Fear of suicide may lead to defensive practice which consequently will have a negative impact on the therapeutic relationship. Juridical and disciplinary consequences may play an important part in the decisions.

Sometimes the negative impact of an admission is preferred rather than having to deal with consequences of a suicide. There are numerous examples of NoK/carers considering the lack of action by professionals as the cause of suicide and blaming professionals for the suicide.

There is a worldwide difference in *practice of observation/how observation is executed*. In case of relative understaffing, 1:1 observation is not always possible. Separation of suicidal patients in some cases is the safest option. Separation however is an undesirable intervention. It is preferable to allocate more nursing staff or invest in technology like detection systems with smart sensors to allow for constant

Picture 1 Technical details for the automation room

observation. Over the last years, the first author and others introduced automation rooms on a closed ward. This technical device is used in a normal single patient room and includes different smart sensors and "visual contour detection" by a distant warning system (see Picture 1). The introduction of this system was found to reduce seclusion with more than 76% in a natural prospective design study (oral presentations, see, e.g., https://suicidaliteit.nl/2018/CCITP/presentatieCCITP.pdf).

Patients and staff generally commend this new technology.

Advice in this chapter is according to "what would be best in an ideal situation." Practically, an acute admission ward can be capricious. There may be heterogeneous disorders, unclear diagnoses, and mixed symptomatology all interfering with each other [23]. The dichotomy between taking over responsibility and allowing a patient as much responsibility as possible is not straightforward in daily practice. It remains difficult for both professionals and patients to assess how much responsibility a patient can carry [24]. Often professionals are not fully aware of the suicide risks and assessment of suicide risks. An extensive teaching program for professionals is essential. Professionals not assessing suicide or ignoring suicidal behavior on an acute admission ward are not acceptable [4].

Intensive Home Treatments

There has been a significant reduction in beds over the last few years, and admissions are replaced by "intensive home treatment" (IHT). IHT involves a team consisting of a doctor and affiliated nurses who are able to see a patient several times during the day at home. Just like on a ward, these teams play an important role in assessment and reduction of suicidal behavior. Research needs to verify the effect on treatment and the course of suicidal behavior. There is potential for IHT teams to reduce suicide risk; one concern is the possibility that suicide rates could be higher in this specific (IHT) setting than in an inpatient setting. The bed reduction leads to increase of suicide rates during treatment with the IHT, but the overall suicide rate in this population needing intensive treatment is the same [25].

Finally

The ability to connect with suicidal patient is essential for any good suicide risk assessment.

Improved professional skills will improve care for suicidal patients. It is also important to develop practice guidelines and a common vision on how to implement those guidelines within the team [26]. We advise for team members to be trained regularly in management of suicidal behavior. This will improve and develop individual skills, and it increases knowledge about suicidal behavior.

We also want to emphasize that carers of suicidal patients play a crucial role in admission, treatment, and discharge. Professionals need to involve carers when and wherever possible.

To improve assessment of suicide risk on an acute admission ward, we advise working with the phased treatment plan, which allows careful observation. Of course, carers need to be involved in this plan.

Without constant observation there is always a risk of a patient killing themselves on the ward. There are numerous ways by which patients can successfully complete suicide; however, the most common method is hanging (see before). Despite these findings, there are still newly built hospitals that do not take ligature points into consideration (like doorknobs, sliding edges on the door, strong smooth ceilings, etc.) resulting in patients hanging themselves during admission.

Risk assessment is a continuous process that starts at admission and needs to be repeated throughout the admission period [8].

Suicide risk assessment does not stop at discharge. Especially during the transition phase after discharge, monitoring of suicidal behavior is crucial.

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