

# A Safety Plan for preventing suicide in a closed acute ward.

## Description, first experiences and clinical characteristics.

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### Introduction

-The KCAP (Clinical Centre for Acute Psychiatry) is the largest acute closed ward in the Netherlands.  
-Patients, in whom suicidal behaviour is recognised by a mental health worker, and at a supposedly high risk for suicide, are commonly admitted to an acute closed ward.  
-The estimated risk for suicide is strongly increased during admission.<sup>1,2</sup> There is a need to identify factors that are associated with suicide among in-patients and it is imperative to guarantee safety for patients as well as for the staff.<sup>3</sup>  
-In July 2007 a method was developed to estimate risk and setting for suicidal inpatients.  
-Every patient receives a 'danger code'. This is precisely described in a safety code manual by de Winter.<sup>4</sup> This is summarised below in **Table 1**.  
-This code is registered and evaluated during the daily report of the nursing to the medical staff.

#### Aim:

-Description of the safety plan and a preliminary evaluation of the experiences with this method over a period of 6 months.  
-Presentation of preliminary clinical and demographic characteristics of these suicidal patients regarding to this safety plan.  
-Description of experiences among the staff of the KCAP.

**Table 1** Safety plan, danger codes (phases) for the risk of suicide at the KCAP

Phase 5 (Red)	Seclusion	Severely suicidal
Phase 4 (Orange)	Supervision	↓
Phase 3 (Yellow)	Closed, without supervision or freedom	
Phase 2 (Green)	On request outside the unit	
Phase 1 (Blue)	Preparation for clinical discharge	

### Material and methods

-From the beginning of January until the 30<sup>th</sup> of June 2009, 687 patients were admitted. For 681 (99%) patients the safety codes and complete data were available.  
-Patients (n = 63, 9.3%) with code 4 and 5 (higher risk) were compared with patients (n = 618, 90.7%) with code 1,2 and 3 (lower risk).  
-At admission patients were assessed for the presence of 5 target symptoms (e.g. depressive mood or suicidal behaviour, see **Table 4**).<sup>5</sup>  
-During admission a DSM-V diagnosis was assigned. Diagnoses were clustered in:  
1) Depressive disorders (also Bipolar depression), 2) Bipolar disorder manic episode, 3) Psychotic disorders, 4) Disorders related to substance abuse/dependence, 5) Personality disorders, 6) otherwise.  
-An anonymous questionnaire was sent to ward staff by [www.thesistools.com](http://www.thesistools.com), 36 responded.  
-Data analysis: Mann-Whitney U, t tests and  $\chi^2$  tests were used. The Statistical Package for Social Sciences version 17.0 (SPSS 17.0 INC, Chicago) was used for statistical analyses.

### Results

Since the introduction of the safety plan in July 2007, 4 patients (2 female) committed suicide during admission (3 in the clinic and 1 outside). These suicides took place during the collection of these data. One of these patients had at some time during admission been placed in the higher risk (code 4 and code 5) phases, the other 3 had at some time been placed in phase 3. Ultimately 3 patients committed suicide during phase 3 (n = 3) and 1 during phase 2. See further **Tables 2-4**.

**Table 2** Distribution of the codes (phases) of the safety plan in the higher and lower risk groups

Phase 5 (higher risk)	n = 24 (3,5%)
Phase 4 (higher risk)	n = 39 (5,7%)
Phase 3 (lower risk)	n = 428 (62,7%)
Phase 2 (lower risk)	n = 165 (24,2%)
Phase 1 (lower risk)	n = 16 (2,3%)

**Table 3.** Levels of highest suicidal behaviour for all patients during admission and for the higher risk patients (n = 63) <sup>a</sup> significant p < .001.

	Highest suicidal behaviour all patients (n = 681)	Highest suicidal behaviour higher risk patients (n = 63)
Suicide	n = 4 (0,6%)	n = 1 (1,6%)
Suicide attempt (lethal intent)	n = 28 (4,1%)	n = 14 (22,2%) <sup>a</sup>
Suicide attempt (non-lethal intent)	n = 44 (6,4%)	n = 17 (27,0%) <sup>a</sup>
Suicidal tendencies	n = 44 (6,4%)	n = 8 (12,7%)
Suicidal thoughts	n = 116 (17,0%)	n = 14 (22,3%)

**Table 4.** Differences in demographic and clinical characteristics between higher and lower risk patients.

	Low risk code	High risk code	Significance
CGI	5.2	5.7	p < .001
GAF (categorised)	2.3	1.6	p < .001
Female gender	41.5%	60%	p = .004
Age (yrs)	39.5	35.2	p = .012
Married/living together	30%	39%	ns
Children	33%	46%	ns
Compulsory admission	38%	44%	ns
First admission at KCAP (<5 yrs)	42%	68%	p < .001
Secluded	18%	38%	p < .001
Jobless	66%	49%	p < .001
ECT treatment	0.6%	6.3%	p < .001
<b>Target symptoms</b>			
Suicidal during admission	25%	81%	p < .001
Automutilation	7.3%	19%	p = .001
Depressive mood	28.3%	51%	p < .001
Psychotic features	55%	52%	ns
Alcohol dep/abuse	14%	4.8%	p = .035
<b>DSM clusters</b>			
Depressive disorder	8%	27%	p < .001
Bipolar disorder manic	11%	2%	p = .019
Psychotic disorder	30%	19%	ns
Substance abuse	15%	12.5%	ns
Personality disorder	19.4%	8.5%	ns

**Table 5** Questionnaire about the safety plan from anonymous staff workers (n = 36)

Do you know exactly what the safety plan contains?	Yes	100%
	No	0%
Does the safety plan make you more aware of the risks of suicide?	Always	28%
	Mostly	41%
	Sometimes	19%
	Not	11%
Do you experience a team collaboration (with the doctor) when appraising and coding a suicidal patient?	Always	14%
	Mostly	41.5%
	Sometimes	41.5%
	Not	3%
Do you think that the safety plan makes you more capable of preventing suicide?	Always	0%
	Mostly	17%
	Sometimes	58%
	Not	25%
Should we continue the safety plan on the KCAP?	Yes	81%
	Not	19%

### Discussion

-The safety plan is consequently used, is clear for patients and staff, but it does not prevent suicide.  
-Unknown patients are probably getting a higher code, because the suicidal behaviour is more often seen as acute than as chronically suicidal.  
-There is a need for the development of a structured taxation for the risk of suicide in the acute setting.  
-Probably because of defensive treatment mechanisms, most patients are allocated to phase 3.  
-14.3% had no suicidal behaviour in the higher risk group, thus taxation is perhaps in part based on inexplicable psychiatric behaviour (e.g. mutism or hallucinatory behaviour)  
-Need for differentiation between chronically and acutely suicidal patients in the safety plan.  
-Need for development of instruments to assess the suicide risk among closed inpatients in conjunction with the safety plan.

### Limitations

- There is insufficient registration of decrease or change of codes over time.  
- There are as yet different and insufficiently validated definitions for suicidal behaviour.  
- The safety plan is a theoretically, not empirically, based construct.  
- There is a positive selection of results  
- There is a lack of instruments for measuring psychopathology and for taxation of the risk of suicide

### References

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