

emergency care, and underuse outpatient services. Nonetheless, regarding the outcome of suicide mortality and other causes of death, few evidence-based data^{2,3} have been published. To estimate the risks of DAMA on various causes of death is important for implementing effective postdischarge care. We investigated the association between DAMA and suicide as well as other causes of death by following a large cohort of psychiatric inpatients. We found that DAMA was associated with a significantly higher risk of suicide compared to nonsuicide mortality.

Method. We retrospectively enrolled a consecutive series of 11,040 acutely ill psychiatric inpatients, with 18,977 person-admissions, admitted to the Taipei City Psychiatric Center between 1998 and 2005 as the study cohort. If a patient had several hospitalizations, the earliest was defined as the index admission. DAMA was defined as an unplanned departure for which the psychiatrist-in-charge documented in the medical record that the patient or one's legally authorized representative decided to terminate hospitalization against the psychiatrist's medical advice. The individual's information was acquired through administrative electronic files, including a proper suicide precaution during the index admission depending on the grade of the individual's suicide risk (absent, I, II, III). The grade for each patient was carefully evaluated every day by a resident psychiatrist who was under the strict supervision of a senior board-certified psychiatrist-in-charge during the hospitalization. All of resident psychiatrists received a specific training program for the grading system before their clinical practices. The standard operational procedure was listed elsewhere⁴ and was compatible with the suicide precautions described by Busch et al.⁵ Briefly, grade I was defined as a clinically significant suicide ideation on every-30-minute checks; grade II was an identifiable suicide plan on every-15-minute checks; grade III was a high risk for attempted suicide on 1:1 observation or with staff.

To search for deceased subjects, the cohort was electronically linked to the National Death Certification System in Taiwan from 1998 through 2007. Cox proportional hazards analyses were conducted to estimate the hazard ratios for the association between DAMA and suicide (see Table 1), along with those between DAMA and other causes of death.

Results. Unadjusted analyses showed that the DAMA group was associated with increased suicide mortality compared to the non-DAMA group (Table 1). In multivariate analyses, after controlling for the covariates listed in Table 1, DAMA remained associated with a significantly increased likelihood of suicide (HR = 1.43, 95% CI = 1.05–1.95, $P < .05$). Additionally, the risk of suicide was associated with the grade of suicide precaution (see Table 1). Multivariate analyses revealed DAMA was not a significant risk factor for other causes of death, including accidental, undetermined unnatural, cardiovascular, endocrine/metabolic, respiratory, neurologic, cancerous, or undetermined natural deaths.

To our knowledge, this is the first study of a large cohort comparing mortality outcomes between patients with DAMA and those who were discharged regularly. The results imply that patients with DAMA might have unresolved psychiatric disorders or detrimental psychosocial difficulties and were more likely to complete suicide. Nonetheless, the reasons for the increase in suicide mortality risk are most likely complex. Further research is needed to develop a better understanding of the factors contributing to the increase in suicide mortality risk. Due to the nature of poor outcomes when patients undergo DAMA,¹ we hypothesized that DAMA was a risk factor for each cause of death, including natural deaths. However, our empirical results revealed no significant risk for the causes of natural death. There is one possible explanation: in spite of a negative preconception and strong social stigma regarding psychiatric hospitalization among the DAMA group,⁶ individuals might not hesitate to visit a physician in the case of a physical illness. Additionally, we identified that the grade of suicide precaution was

Psychiatric Discharge Against Medical Advice Is a Risk Factor for Suicide but Not for Other Causes of Death

To the Editor: Discharge against medical advice (DAMA) is common among psychiatric inpatients. A comprehensive review reported that the estimated prevalence ranged from 3% to 51% and increased over time.¹ DAMA has received little attention in the medical literature, and most works were published a decade ago. The literature shows that patients requesting DAMA have poorer long-term prognoses,¹ have greater rehospitalization rates, overuse

Table 1. Cox Proportional Hazards Regression of Associations Between Suicide Mortality and Its Potential Risk Factors at the Index Admission (N = 11,040)

Characteristic	N	Suicide Mortality, n	Index Admission	
			Unadjusted Hazard Ratio (95% CI)	Adjusted Hazard Ratio (95% CI)
Gender				
Female	6,327	159	1.00	1.00
Male	4,713	98	1.24 (0.96–1.59)	1.30 (0.99–1.71)
Status of discharge				
Non-DAMA	8,985	191	1.00	1.00
DAMA	2,055	66	1.51 (1.14–2.00)**	1.43 ^a (1.05–1.95)*
Diagnosis (DSM-IV) at discharge				
Schizophrenia	3,680	85	1.00	1.00
Affective disorders	2,042	53	1.14 (0.81–1.61)	1.13 (0.80–1.61)
Alcohol use disorder	821	19	1.15 (0.70–1.89)	0.99 (0.59–1.65)
Drug use disorders	1,691	45	1.19 (0.83–1.71)	0.94 (0.63–1.42)
Organic mental disorder	941	8	0.49 (0.24–1.00)	0.80 (0.38–1.73)
Others	1,865	47	1.23 (0.86–1.76)	1.31 (0.91–1.88)
Suicide precaution				
Absence	10,204	216	1.00	1.00
Grade I	574	28	2.23 (1.50–3.31)***	2.22 (1.48–3.33)***
Grade II	232	11	2.11 (1.15–3.86)*	2.17 (1.18–4.02)*
Grade III	30	2	2.74 (0.68–11.05)	3.13 (0.77–12.69)

^aAdjusted for gender, age, the psychiatric diagnosis, and suicide precaution grade.

* $P < .05$.

** $P < .01$.

*** $P < .001$.

Abbreviations: CI = confidence interval, DAMA = discharge against medical advice.

positively associated with the risk of suicide mortality. Nearly all of fatal suicide events were at the postdischarge period, and only 2.7% of suicide mortalities (7/257) happened during the index admission. Future studies of the predictive and protective effects of the suicide risk grading system on subsequent suicides are warranted, especially for different psychiatric groups. The limitation of this study should be carefully considered. In the multivariate analysis, we controlled for previously attempted suicide, which was the most important risk factor for completed suicide.⁷ Nonetheless, data on other factors associated with DAMA, such as living alone and unemployment,¹ were not readily available.

In summary, our findings show notable evidence to provide clinicians valuable insight when making discharge decisions and enhancing the postdischarge care of patients discharged against medical advice.

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