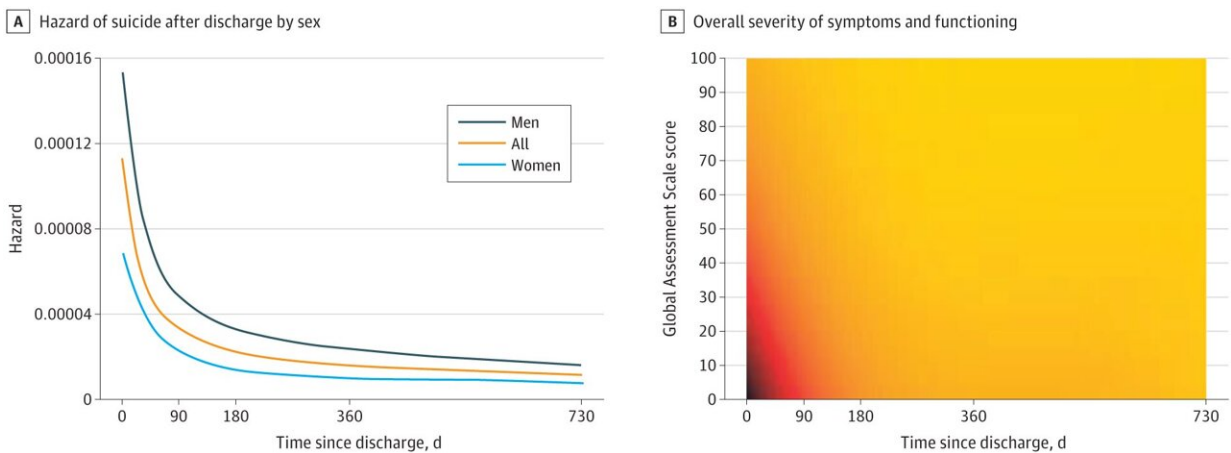


People with depression at highest risk of suicide in first 3 days following hospitalization, analysis finds

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Hazard of Suicide After Discharge by Sex and Overall Severity of Symptoms and Functioning Up to 2 Years. A, Hazard of suicide for men, women, and overall by time from discharge in days. B, The heat map represents risk of suicide by Global Assessment Scale score assigned at admission and time from discharge, where black indicates higher and yellow indicates lower relative risk. Credit: *JAMA Psychiatry* (2024). DOI: 10.1001/jamapsychiatry.2023.5512

Continued treatment is important as those suffering from depression are at risk of suicide for the first three days after psychiatric hospitalization. The risk of suicide is affected by the severity of the depression and previous suicidal tendencies.

Patients with [depression](#) are at their highest risk of [suicide](#) during the first three days after psychiatric hospitalization. The risk is 330 times that of the rest of the population. After the first few days, the risk of suicide remains high, but decreases steadily over time.

Only a small minority of all [patients](#) with depression are treated in a psychiatric hospital, while the majority are treated in outpatient care.

"Patients are often referred to hospital care specifically because of the risk of suicide. However, this recent study clearly indicates that the risk is not always over at the end of hospitalization. The transition from the hospital to outpatient care is a critical period," explains Head Physician of Psychiatry at HUS and Professor at the University of Helsinki Erkki Isometsä.

An extensive register-based study charted suicides that occurred after the hospitalization of depression patients. The patients in the study were diagnosed with depression and treated in a psychiatric hospital for it. The study was carried out as a cooperation project, and [published](#) in *JAMA Psychiatry*. Professor Reijo Sund from the University of Eastern Finland was especially responsible for the data analyses of the study.

The study is based on register data on all treatment periods of patients in Finland who were treated in a psychiatric hospital due to depression in 1996–2017, a total of 91,161 patients and 193,197 treatment periods. Of these patients, 1,976 died of suicide during a monitoring period of up to two years.

Over the 22-year period covered by the study, suicide mortality has decreased significantly in Finland as a whole, including the suicide rates of depression patients.

Severity of depression and previous suicidal behavior

affect the risk of suicide

It was already known that, after psychiatric hospitalization, the risk of suicide is high as the patient is transferred to outpatient care. Now, the extensive data of the recently published study gives a more detailed picture of the risk stages of treatment.

The study also provides information that is important for clinical decision-making on the risk factors of suicide and the time windows in which they are present. In the short term, the severity of the patient's depression and the nature of their previous self-harming behavior are particularly significant. These factors have not been charted in previous studies during the period of very high risk.

"In my opinion, the study strongly advocates for the importance of close cooperation between the hospital and outpatient care. It's also essential to ensure that the treatment of depression was effective in the hospital," says Isometsä.

It was not possible to chart the factors related to the treatment received by patients in the study. However, the research observations highlight the significance of continued [treatment](#) when a depressed patient is transferred from a [psychiatric hospital](#) to outpatient care.

The first author of the study is Chief Physician Kari Aaltonen from HUS Psychiatry. In addition to Aaltonen, Isometsä and Sund, the study also involved Assistant Professor Christian Hakulinen from the University of Helsinki and the Finnish Institute for Health and Welfare, and Professor Sami Pirkola from the University of Tampere.

According to Sund, novel aspects in the analysis included more accurate modeling of the time dimension, which was made possible by the use of new advanced data analysis techniques in addition to the extensive

register material.

More information: Kari Aaltonen et al, Variations in Suicide Risk and Risk Factors After Hospitalization for Depression in Finland, 1996-2017, *JAMA Psychiatry* (2024). [DOI: 10.1001/jamapsychiatry.2023.5512](https://doi.org/10.1001/jamapsychiatry.2023.5512)

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