awareness of sepsis amongst patients, carers, and health professionals may also improve early detection—a key goal in effective management of sepsis.

'Health care professionals may also need to consider more intensive monitoring and treatment of sepsis in people with heart failure. There is also much more research to be done, beyond validating our risk prediction model—for example, to improve strategies to detect and manage early sepsis in people with heart failure'.

Conflict of interest: none declared.

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Mortality with antidepressants after acute MI

Antidepressant use after acute myocardial infarction (MI) is associated with an increased mortality 1 year after discharge from Swiss hospitals

We analysed data from the AmisPlus Registry to evaluate the differences in outcome between patients who received antidepressants after acute myocardial infarction and the ones who did not. Additionally, we analysed differences in baseline characteristics, presentation and treatment in these groups. Amis Plus is a Swiss nationwide prospective multicentre study of patients with acute coronary syndrome who were hospitalized in Switzerland. Included in the study were patients with a definitive diagnosis of ST-elevation myocardial infarction or non-ST-elevation myocardial infarction enrolled between 2005 and 2016. All participants gave their informed consent for participation in the 12-month follow-up by phone.

We had 9253 patients who gave informed consent for follow-up on our database. In total, 96.3% of them had a 1-year follow-up and 6.3% had antidepressant medication at discharge. We found several differences in baseline characteristics when comparing patients who received antidepressants at discharge with ones who didn't.

The antidepressant group was predominantly female and older, they had a higher incidence of pre-existing coronary artery disease and history of diabetes, dyslipidaemia, and obesity. They also reached higher Charlson Comorbidity Index scores. Furthermore, there were differences in clinical presentation. The antidepressant group had significantly fewer typical symptoms but presented more often with dyspnoea. They reached a higher Killip Class and suffered non-ST-elevation myocardial infarction more frequently when compared with the group without antidepressants.

Looking at acute treatment of this patient group, we found that they underwent fewer percutaneous coronary interventions, had longer door to balloon time and more in-hospital complications. The two groups also differed in medication at discharge, prescribed P2y12 blockers and statins were prescribed less often.

Our primary endpoint was death 1 year after myocardial infarction. But we also wanted to look at subjective assessment of status after acute myocardial. In the 1-year follow-up by phone, 10% of patients who had not yet reached the Swiss age for retirement had stopped working, however, no difference was found in work reduction. When asked if the patients felt better, the same or worse 1 year after acute myocardial infarction, 22% of the patients in both groups said that they felt better than before the event.

Additionally, we investigated the impact antidepressant prescription at discharge had on mortality 1 year after acute myocardial infarction. It appeared to be an independent predictor for mortality within 1 year after discharge, showing an odds ratio of 1.66 corrected for age, sex, comorbidity, Killip Class, Charlson Comorbidity Index, non-ST-elevation myocardial infarction, and complications during hospitalization. Besides this, we identified female gender, non-ST-elevation myocardial infarction and performed percutaneous coronary intervention as negative predictors for mortality.

Our limitations were that we had no information on a possible depression diagnosis, it was unknown which antidepressant was prescribed and we had no data on patient medication adherence.

What have we learnt from this study: antidepressant medication at discharge is associated with higher crude all-cause mortality; furthermore, it is an independent predictor for mortality 1 year after acute myocardial infarction. More research is needed to pinpoint the causes and underlying pathomechanisms for the higher mortality observed in this patient group. A possible clinical implication could be that this patient group is more at risk and may need to be observed more closely.

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