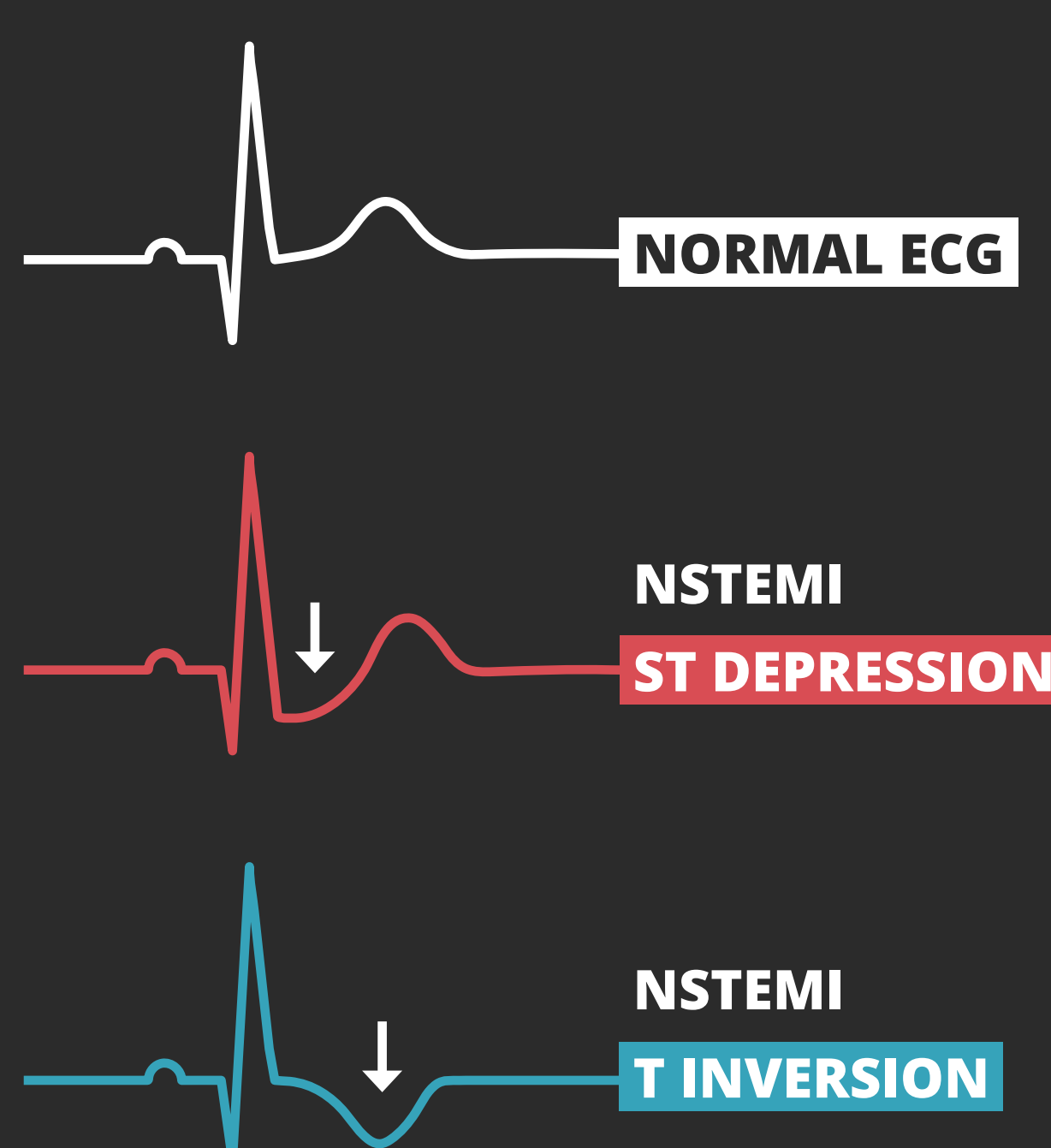


Impact of electrocardiographic morphology on clinical outcomes in patients with non-ST elevation myocardial infarction receiving coronary angiography and intervention: A retrospective study

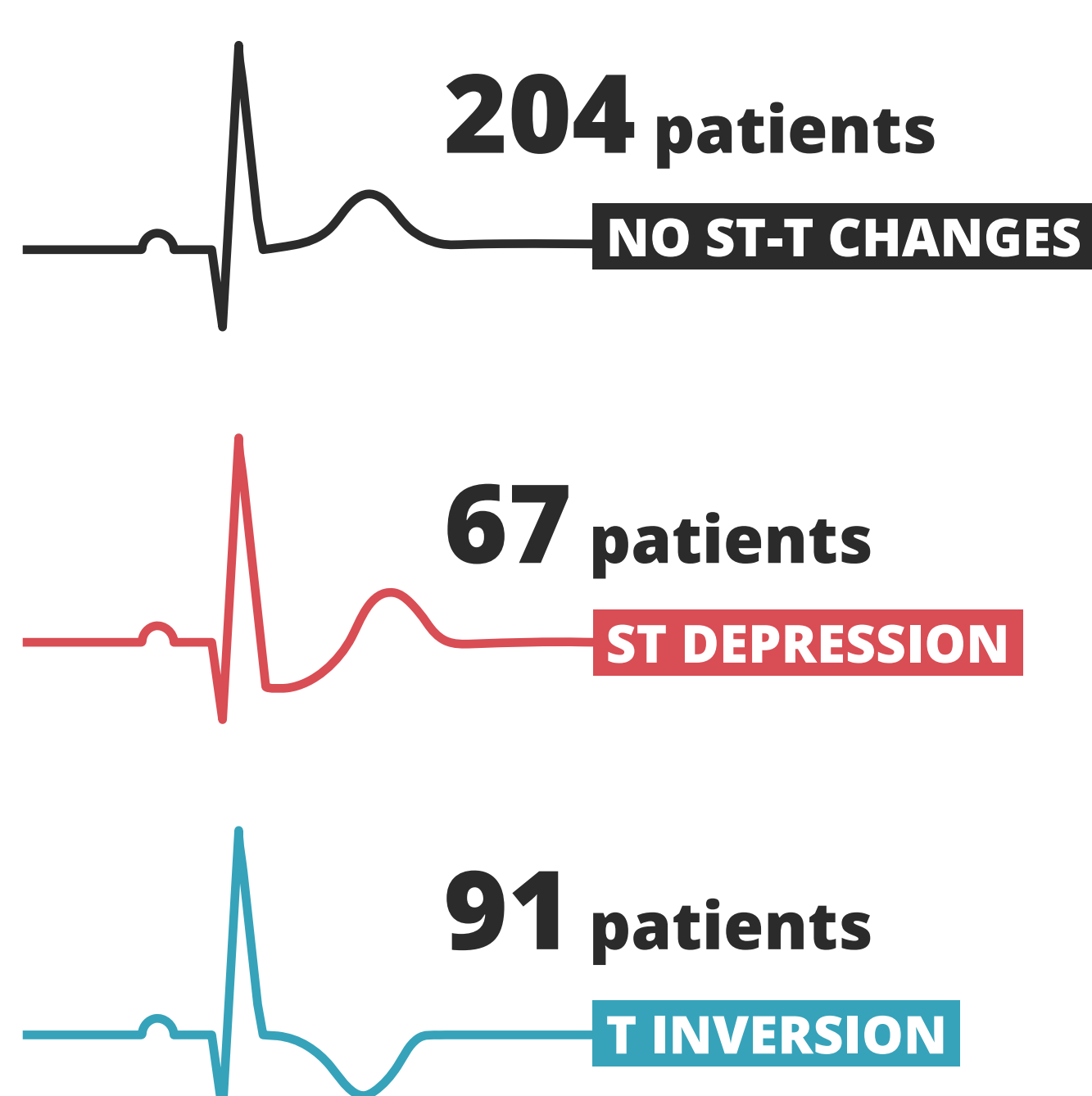
BACKGROUND

It is unclear how electrocardiography (ECG) morphology impacts clinical outcomes in patients with non-ST segment elevation myocardial infarction (NSTEMI) that receive percutaneous coronary intervention (PCI). **This study investigated whether different ST morphologies had different clinical outcomes in patients with NSTEMI that receive PCI.**



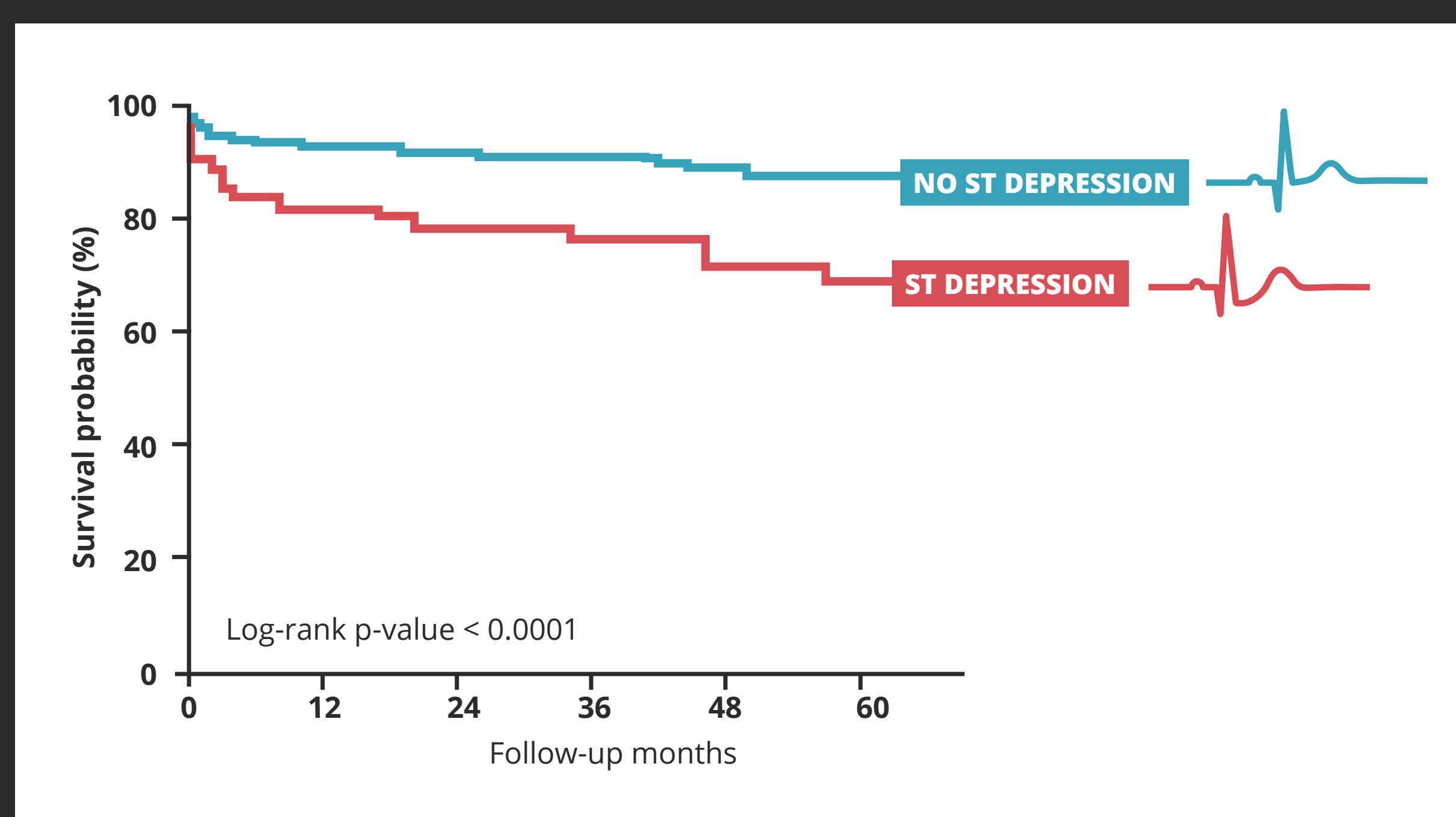
METHODS

This retrospective study analyzed record-linked data belonging to **362 patients that had received PCI for NSTEMI** between January 2008 and December 2010. ECG revealed ST depression in 67 patients, inverted T wave in 91 patients, and no significant ST-T changes in 204 patients. The primary endpoint was longterm all-cause mortality. The secondary endpoint was long-term cardiac death and non-fatal major adverse cardiac events.



RESULTS

Compared to those patients whose ECG showed an inverted T wave or non-specific ST-T changes, patients whose ECG showed ST depression were more likely to have diabetes mellitus, advanced chronic kidney disease (CKD) and left main artery disease; in-hospital mortality, cardiac death and pulmonary edema were also more likely during hospitalization. **Among patients with ST depression there was a significantly higher rate of long-term total mortality and cardiac death.**



Finally, multiple stepwise Cox regression analysis showed that an advanced Killip score, age, advanced CKD, prior percutaneous transluminal coronary angioplasty and ST depression were independent predictors of the primary endpoint.

CONCLUSION

Among NSTEMI patients undergoing coronary angiography, **those with ST depression were more likely to die in the hospital or due to cardiac events.** Long-term follow-up of patients with ST depression consistently reveals poor outcomes.