

## Impact of smoking status on outcomes in ACS: the ex-smokers' paradox

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**Background:** Paradoxically, in patients who smoke, STEMI tends to occur about 10 years earlier than in non-smokers, and their in-hospital survival is better. The aim of this study was to determine the impact of smoking on management and hospital outcomes across the spectrum of ACS.

**Methods and results:** The treatment and outcomes of 15,434 patients were analyzed across ACS subgroups: STEMI, NSTEMI, and UA. Smokers more frequently presented with an STEMI (45.7%) than former smokers (27.3%) or non-smokers (29.8%). Smokers were more often male, were younger, and were more aggressively treated than former smokers and non-smokers. The hospital death rate was highest in non-smokers compared with former smokers and smokers across ACS subgroups (Figure). Multivariate logistic analysis showed that the hospital mortality rate was significantly lower for smokers (3.3%) and former smokers (4.3%). After adjustment for age the benefit remained only for former smokers (OR 0.78).

**Conclusion:** Patients who smoke are generally younger than non-smokers when they present with ACS and tend to receive more aggressive treatment.

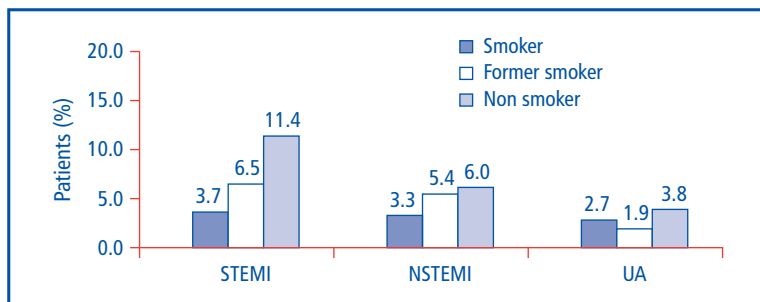


Figure. Hospital death rate (all  $a < 0.001$  across comparison groups)