## The effect of in-hospital high-dose vs. low-dose intensive statin in patients with non-ST segment elevation acute coronary syndrome

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**Background:** Statins remain a standard treatment for acute coronary syndrome (ACS) patients. We aimed to determine the association between different dosages of in-hospital statins and the prognoses among patients receiving percutaneous coronary intervention (PCI).

**Methods:** NSTE-ACS patients were retrospectively enrolled from January 2010 to December 2014 from five centres in China. Patients receiving either atorvastatin or rosuvastatin during their hospitalizations were included. All the patients were categorized into high-dose statin group (40mg atorvastatin or 20mg rosuvastatin) or low-dose statin group (20mg atorvastatin or 10mg rosuvastatin). In-hospital events and long-term all-cause death was recorded.

**Results:** Of the 7,008 patients included in the study, 5,248 received low-dose intensive statin (mean age: 64.28±10.39; female: 25.2%), and

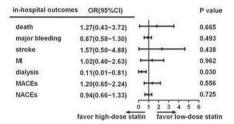
1,760 received high-dose intensive statin (mean age: 63.68±10.59; female: 23.1%). There was no significant difference in in-hospital all-cause death between the two groups (adjusted OR, 1.27; P=0.665). All-cause death was similar between the two groups during the long-term follow-up period (30-day: adjusted HR, 1.28; P=0.571; 3-year: adjusted HR, 0.83; P=0.082). However, there was a robust association between the high-dose statin and the reduction in in-hospital dialysis (adjusted OR, 0.11; P=0.030).

Conclusions: The in-hospital high-dose intensive statin is not associated with lower risks of in-hospital or follow-up all-cause death in NSTE-ACS patients undergoing PCI. Considering the robust beneficial effect of in-hospital dialysis, an individualized high-dose intensive statin can be rational in specified populations.

## a. univariate analysis

## in-hospital outcomes death 1.28(0.49~3.33) 0.615 major bleeding 0.90(0.61~1.33) 0.607 stroke 1.36(0.47~3.91) 0.572 0.915 MI 1.05(0.41~2.67) dialysis 0.10(0.01~0.75) 0.025 MACES 1.26(0.70~2.26) 0.444 NACES 1.00(0.72~1.39) 0.996 favor high-dose statin favor low-dose statin

## b. multivariate analysis



Univariate and multivariate analyses

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