

NSTEMI patients: early revascularisation improves survival



The optimal timing for potential intervention in patients with non ST-segment elevation myocardial infarction (NSTEMI) remains unclear. Recent evidence on early versus selective percutaneous coronary intervention is ambiguous with respect to effects on mortality, myocardial infarction and recurrent angina. New research indicates a substantial treatment gap in higher-risk NSTEMI patients in German Chest Pain Units. "This treatment paradox may worsen prognosis in patients who could derive the largest benefit from early revascularisation," says the study published in the *International Journal of Cardiology*.

Patients with NSTEMI represent the largest fraction of patients with acute coronary syndrome in German Chest Pain Units (CPUs). The clinical spectrum of NSTEMI patients may range from patients free of symptoms at presentation to individuals with ongoing ischaemia, electrical or haemodynamic instability or cardiac arrest. Given this highly variable clinical spectrum, the expected benefit of early versus delayed therapeutic intervention is highly inhomogeneous with this large cohort of patients.

In this study, researchers sought to investigate the prognostic impact of percutaneous coronary intervention (PCI) and its timing in German CPU-NSTEMI patients. Data from 1,549 patients whose leading diagnosis was NSTEMI were retrieved from the German CPU registry for the interval between March 2010 and March 2014. Follow-up was available at median of 167 days after discharge. The patients were grouped into a higher (Group A) and lower risk group (Group B) according to GRACE score and additional criteria on admission.

Based on the results, Group A had higher Killip classes, higher brain natriuretic peptide (BNP) levels, reduced ejection fraction (EF) and significant more triple vessel disease ($p < 0.001$). Surprisingly, patients in Group A less frequently received early diagnostic catheterisation and PCI. While conservative management did not affect prognosis in Group B, higher-risk CPU-NSTEMI patients without PCI had a significantly worse survival.

"The present study shows that, contrary to guideline recommendation, lower-risk rather than higher-risk NSTEMI patients undergo early coronary intervention in German CPUs. This treatment paradox is associated with lower survival rates within a 3-month period after CPU discharge," the authors write. "Thus, like in CPU STEMI patients, we demonstrated a gap between recommendations and practice in the treatment of this patient population in Germany. Whether this reflects ability or willingness to treat remains unclear."

To address the clinically important question whether more aggressive treatment in an all-comers high-risk group is beneficial, the authors say a prospective trial with a large sample size and extended clinical follow-up would be needed. "Until then, clinicians should – based on study data and guideline recommendations – not withhold treatment in higher risk patients," the authors point out.

Source: [International Journal of Cardiology](#)

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