

# Review of: "Outcomes of PIANO Score for No-Reflow in Patients Undergoing Primary Percutaneous Coronary Intervention: A Retrospective Study"

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Potential competing interests: No potential competing interests to declare.

## Review of the Article: Outcomes of PIANO Score for No-Reflow in Patients Undergoing Primary Percutaneous Coronary Intervention: A Retrospective Study

This article explores the utility of the PIANO (Predictive Angiographic Index for No-Reflow) score in predicting the no-reflow phenomenon in patients undergoing primary percutaneous coronary intervention (PCI) for acute coronary syndromes. The study retrospectively analyzed 2291 patients, stratifying them into No-Reflow and No No-Reflow groups based on post-procedural angiographic findings.

### Key Findings

#### Predictive Performance:

- The PIANO score demonstrated good predictive capabilities with an AUC of 0.77 for TIMI flow grade 0/1 and an AUC of 0.78 for myocardial blush grade 0/1.
- Sensitivity and specificity were significant, with 0.72 and 0.82 for TIMI flow grade 0/1, and 0.88 and 0.67 for myocardial blush grade 0/1, respectively.

#### Patient and Angiographic Characteristics:

- The No-Reflow group had a higher prevalence of angiographic complexities, including tortuosity, calcification, and side branches.
- Complications such as contrast-induced nephropathy, major bleeding, stroke, ventricular arrhythmias, cardiogenic shock, reinfarction, and stent thrombosis were more frequent in the No-Reflow group.

### Detailed Analysis

**Clinical Relevance:** The no-reflow phenomenon remains a significant challenge in primary PCI

This study doesn't bring something new or relevant regarding this topic.

**Complications and Outcomes:** The study found a huge number of patients with No-Reflow. What are the explanations for ?

**Comparison with Existing Literature:** The findings resonate with previous studies that have explored the predictors and consequences of no-reflow in PCI. The observed AUC values for the PIANO score are comparable to those reported in other predictive models

#### Limitations

**Retrospective Nature:** As a retrospective study, it is subject to inherent limitations such as selection bias and reliance on existing medical records, which may lead to incomplete data.

**Single-Center Study:** The study was conducted at a single center, potentially limiting the generalizability of the findings to other populations or settings.

**Short Follow-Up:** The study's follow-up period was relatively short, focusing on in-hospital outcomes. Long-term implications of the PIANO score's predictive value require further investigation.