

# Lost Opportunities at Discharge. Analysing High-Intensity Statin Therapy Usage in Patients with Acute Coronary Syndrome

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## Background:

High-intensity statin therapy (HIST) is effective in reducing low density lipoprotein cholesterol, regressing atherosclerotic plaque and reducing arterial inflammation<sup>1</sup>. There is a time-related impact of HIST on clinical outcomes of patients with Acute Coronary Syndrome (ACS), whereby early statin administration correlates with significantly lower risk of myocardial infarction, and major adverse cardiac and cerebrovascular events. It is considered a standard of care that ACS patients must have optimal HIST prescribed throughout admission and upon discharge.

## Objective:

To determine the proportion of patients admitted for ACS who are prescribed HIST at hospital discharge from a cardiology unit at a tertiary referral hospital.

## Methods

- A cohort study of 229 patients greater than 18 years of age and diagnosed with ACS was conducted between January and June 2022.
- Data was collected by extracting admission codes for ACS and analysing patient data.
- *Exclusion criteria:* nil diagnosis of ACS, patient not for treatment, refusing treatment, lack of admission data, and duplication of admission data.

## Results:

- 174 patients met inclusion criteria for analysis.
- 74.7% (n=130) of patients were discharged with HIST (*Figure 1.*)
- 25.3% (n=44) were not discharged with HIST. Of these:
  - 66% (n=29) were prescribed no statin therapy.
  - 34% (n=15) were prescribed suboptimal statin therapy (*Figure 2.*)

Figure 1. Patients Discharged with HIST (n=130)

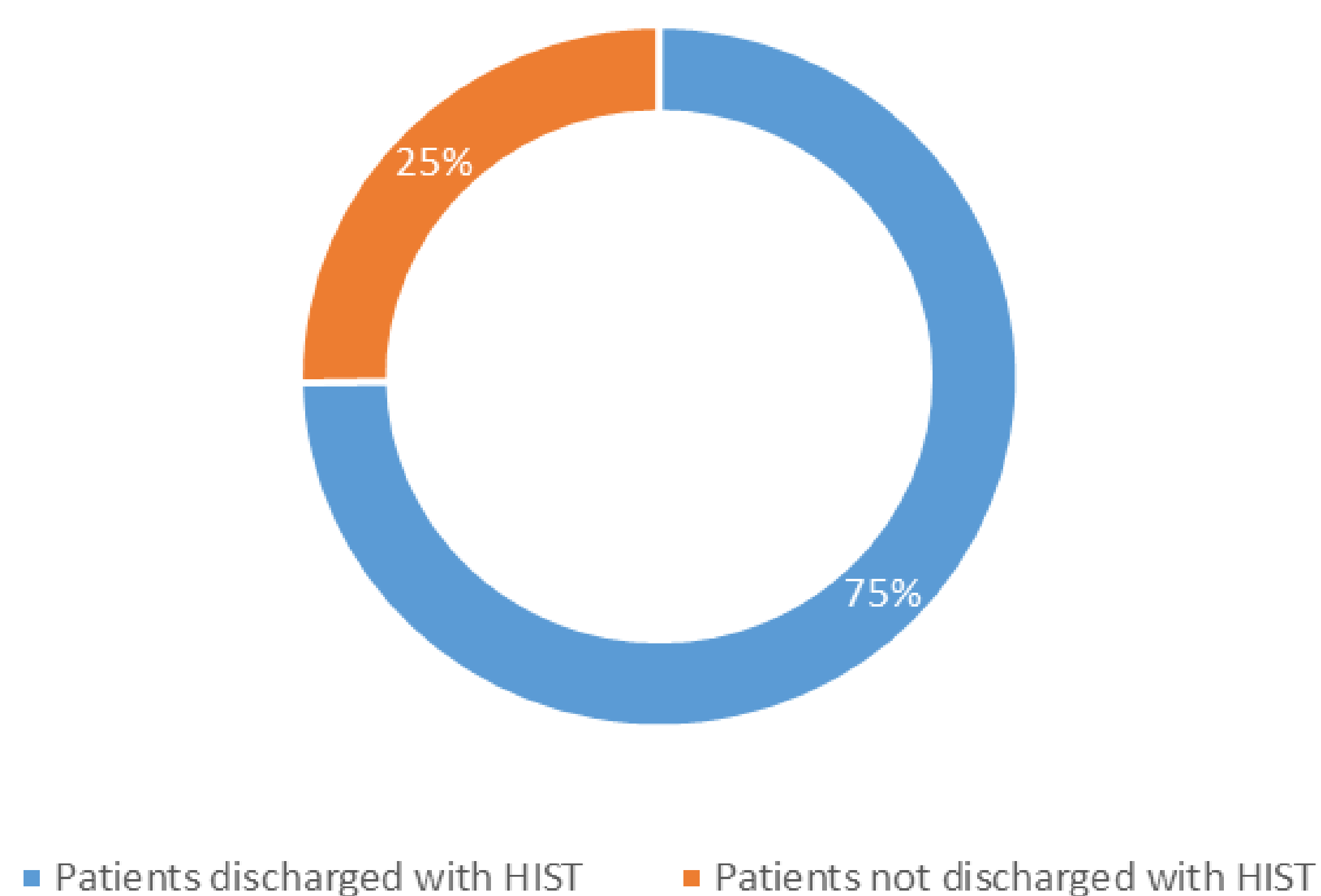
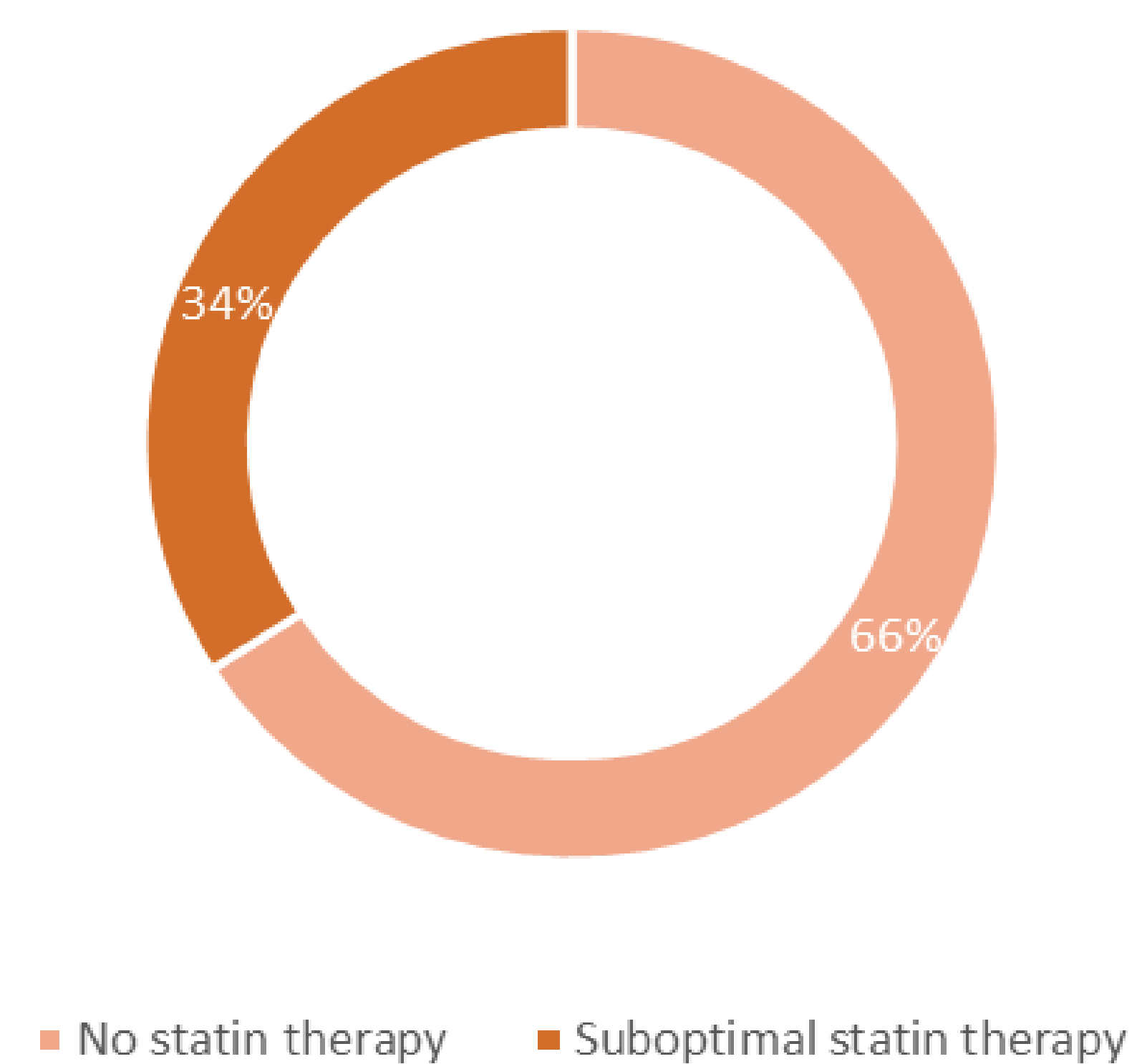


Figure 2. Patients with Nil or Suboptimal Statin Therapy (n=44)



## Discussion:

HIST was omitted or inadequately prescribed in 25.3% (n=44) of patients. Common errors accounting for this include suboptimal medication reconciliation at discharge, non-compliance to established guidelines, and clinician preference.

The development of quality improvement interventions including partnered pharmacist-clinician education to relevant stakeholders, locally endorsed medication guidelines, clinical decision-making support tools for ACS, and a dedicated cardiology stewardship pharmacist, can be utilised to improve appropriate and timely prescribing of HIST at hospital discharge.

## References:

1. National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand. (2016). Australian Clinical Guidelines for the Management of ACS.