# Gastroprotection in AF Patients Receiving Triple Antithrombotic Therapy Following PCI

Kaviya Selvapandian, Hameed Ullah, Hasan Zeb , Pouya Ebrahimi, Anwar Hussain

## Background

Patients with atrial fibrillation (AF) undergoing percutaneous coronary intervention (PCI) frequently require triple antithrombotic therapy, typically a direct oral anticoagulant, a P2Y12 inhibitor, and aspirin, to reduce thromboembolic risk. However, this regimen significantly increases the likelihood of gastrointestinal (GI) bleeding. The European Society of Cardiology (ESC, 2023) and the National Institute for Health and Care Excellence (NICE NG185, 2021) recommend routine proton pump inhibitor (PPI) co-prescription for patients receiving two or more antithrombotic medications, particularly when bleeding risk scores such as ORBIT ≥ 3 or HAS-BLED ≥ 3 are present (ESC, 2023; NICE, 2021).

## Aim

- Assess adherence to NICE & ESC guidelines on PPI prescribing in AF patients on triple therapy post-PCI.
- Identify gaps in prescribing and documentation.
- Establish a baseline for future quality improvement interventions.
- Ensure appropriate gastroprotection based on bleeding risk.

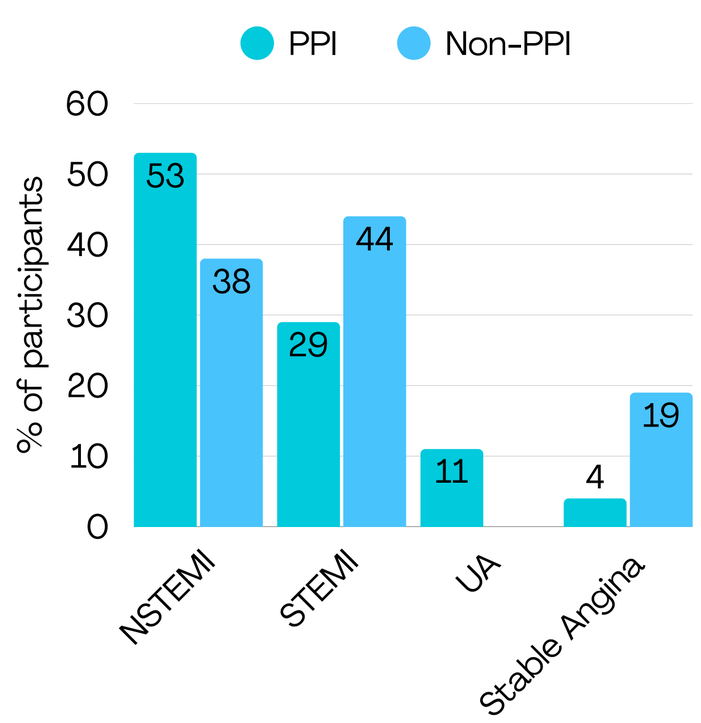

## Methods

A retrospective audit was conducted including all acute coronary syndrome (ACS) patients undergoing PCI between 2023 and 2024. Those with co-existing AF on triple therapy were included (n = 80). Data extracted from electronic health records included demographics, clinical presentation, antithrombotic regimen, PPI use and timing, bleeding risk, and outcomes at 30 and 90 days. Compliance was assessed against predefined standards derived from ESC and NICE guidance.

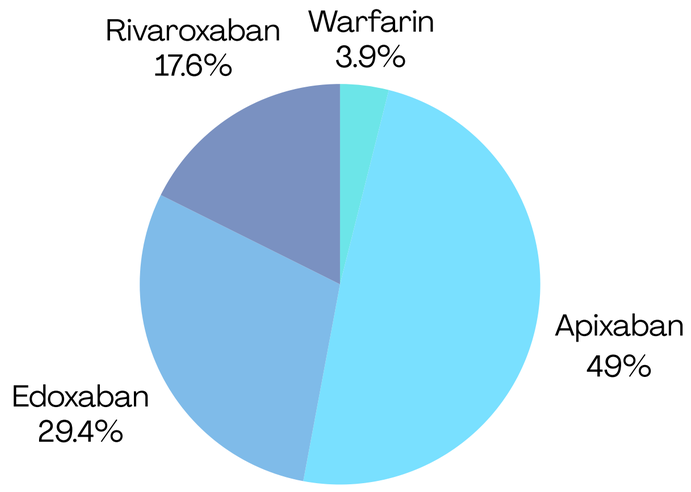
## Results

- Strong compliance of PPI use in patients with ORBIT score ≥ 3 (94%) and triple therapy duration of ≤ 1 month (92%).
- PPI initiation within 24 hours of triple therapy was below target (60%).
- Documentation of PPI rationale suboptimal (82%).
- Two high-risk (ORBIT ≥ 6) patients missed PPI prophylaxis.
- Results provide a baseline for targeted quality improvement and re-audit.

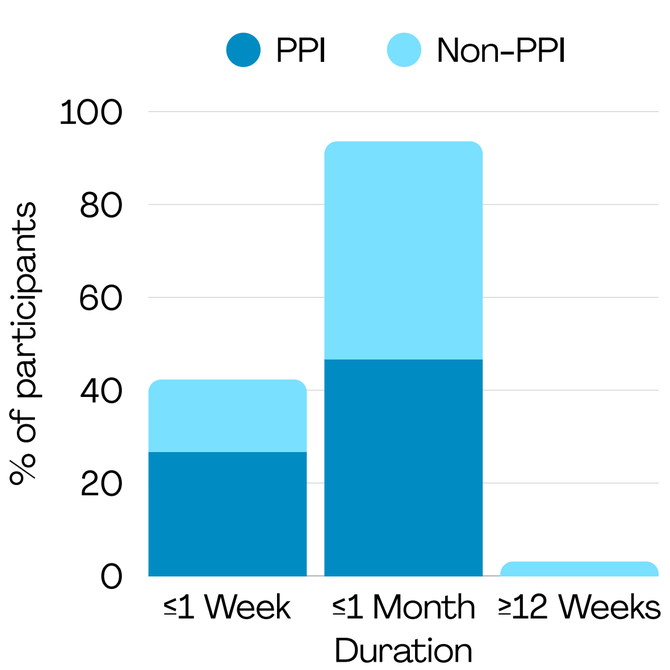
The two groups had comparable demographics, with patients averaging 76 years and predominantly male. ACS was more common in the PPI group, suggesting targeted gastroprotection.




DOACs were used in >95% of patients, with warfarin only in 4% of PPI patients, reflecting excellent adherence to DOAC-first guidelines




Most patients received short-course triple therapy (≤1 month), with slightly shorter median duration in the PPI group, reflecting bleeding-risk awareness.




## Conclusions

This cycle of AF-PCI patients (2023–2024) shows strong adherence to national guidelines for triple therapy duration and long-term anticoagulation, with PPI prophylaxis appropriately targeted to higher-risk individuals. Minor gaps were noted, including delayed PPI initiation within 24 hours, incomplete documentation of rationale, and 6% of very high-risk (ORBIT ≥6) patients not receiving PPI prophylaxis. These findings highlight clear targets for quality improvement before the next cycle of audit.

## Learning Points

- This audit reinforces the value of linking PPI prophylaxis to individual bleeding risk and ACS severity.
- It highlights variability in awareness and application of the ORBIT score during prescribing.
- Identifies the need for clearer documentation ownership between clinicians and pharmacists.
- DIt demonstrates that live prompts and structured EHR fields could prevent missed opportunities for timely PPI initiation.
- Shows how audit data can directly inform workflow optimisation and patient safety initiatives.

## Action Plan

- Electronic Prompt: Add automated reminder for PPI when prescribing triple therapy or if ORBIT ≥3.
- Discharge Update: Include mandatory fields for triple therapy duration and PPI indication.
- Education: Share findings at Cardiology Governance and Pharmacy meetings.
- Pharmacy Check: Ensure PPI reconciliation on discharge, communicate changes via newsletter and clinical handover.

## References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