REVISTA ESPAÑOLA DE CARDIOLOGÍA

Supplementary material

One-year Non-persistence With Contemporary Antiplatelet Therapy in Acute Coronary Syndrome Patients Undergoing Percutaneous Coronary Intervention

John GOUDEVENOS a, Ioanna XANTHOPOULOU b, Spyridon DEFTEREOS c y Dimitrios ALEXOPOULOS b,*

[a] *Department of Cardiology, Ioannina University Hospital, Ioannina, Greece*

[b] *Department of Cardiology, Patras University Hospital, Patras, Greece*

[c] *Department of Cardiology, Athens General Hospital G. Gennimatas, Atenas, Greece*

SUPPLEMENTARY MATERIAL

Time to first occurrence of death, nonfatal myocardial infarction, stroke, urgent revascularization, and major acute cardiovascular events (MACE) (composite of death, myocardial infarction, stroke or urgent revascularization) from hospital discharge until 1 year between cessation vs noncessation and switching vs nonswitching groups were analyzed using Cox proportional hazards models. Hazard ratios (HR) with 95% confidence intervals (95%CI) are reported, both crude, and inverse propensity score estimators adjusted using inverse-probability of treatment weighting (IPTW), where treatment is novel $P2Y_{12}$ receptor antagonist (prasugrel or ticagrelor) at discharge. The propensity score was calculated using the following variables: age, sex, body mass index, number of cardiovascular risk factors (1 point for the presence of each of the following: smoking, hypertension, hyperlipidemia, and diabetes mellitus), prior cardiovascular event (stroke and/or myocardial infarction), prior bleeding, creatinine clearance, acute coronary syndrome type (ST-segment elevation myocardial infarction vs non—ST-elevation acute myocardial infarction vs unstable angina), hemodynamic instability at admission, use of intravenous agents that increase bleeding risk (thrombolysis and/or IIb/IIIa inhibitor administration), oral anticoagulant at discharge, and femoral (vs radial) arterial access.

All clinical events were censored at last contact date (in the case of losses to follow-up) or death, and patients were classified according to $P2Y_{12}$ receptor antagonist treatment at time of death or at the last contact date into groups of cessation vs noncessation and switching vs nonswitching of $P2Y_{12}$ receptor antagonist at discharge. For the assessment of the effect of $P2Y_{12}$ receptor antagonist switching on clinical outcome, we excluded from the time to event analysis 2 patients who switched treatment as a result of a MACE.

Table S1

Clinical Outcomes at 1 Year of Follow-up by $P2Y_{12}$ Receptor Antagonist Cessation

Clinical event	Noncessation n = 1787	Cessation n = 216	Crude		IPTW adjusted	
			HR (95%CI)	*P*	HR (95%CI)	*P*
MACE	103 (5.8)	17 (7.9)	1.35 (0.81-2.26)	.3	1.97 (0.89-4.36)	.1
Death	51 (2.9)	8 (3.7)	1.30 (0.62-2.73)	.5	2.39 (0.67-8.44)	.2
Nonfatal myocardial infarction	13 (0.7)	5 (2.3)	3.18 (1.14-8.93)	.046	2.99 (1.03-8.65)	.04
Urgent revascularization	36 (2.0)	4 (1.9)	0.91 (0.33-2.56)	.9	1.24 (0.41-3.78)	.7
Stroke	5 (0.3)	0 (0)	-	-	-	-

95%CI, 95% confidence interval; HR, hazard ratio; IPTW, inverse probability of treatment weighting; MACE, major acute cardiovascular events.

Table S2

Clinical Outcomes at 1 Year of Follow-up by $P2Y_{12}$ Receptor Antagonist Switching

Clinical event	Nonswitching n = 1736	Switching n = 267	Crude		IPTW adjusted	
			HR (95%CI)	*P*	HR (95%CI)	*P*
MACE	104 (6.0)	16 (6.0)	0.96 (0.57-1.63)	.9	0.92 (0.51-1.65)	.8
Death	55 (3.2)	4 (1.5)	0.45 (0.16-1.24)	.1	0.40 (0.14-1.16)	.09
Nonfatal myocardial infarction	15 (0.9)	3 (1.1)	1.24 (0.36-4.28)	.7	1.13 (0.32-3.96)	.9
Urgent revascularization	32 (1.8)	8 (3.0)	1.56 (0.72-3.39)	.3	1.69 (0.72-3.97)	.2
Stroke	4 (0.2)	1 (0.4)	1.56 (0.17-13.95)	.7	1.15 (0.13-10.41)	.9

95%CI, 95% confidence interval; HR, hazard ratio; IPTW, inverse probability of treatment weighting; MACE, major acute cardiovascular events.

Reasons for cessation and switching for clopidogrel, prasugrel and ticagrelor are depicted in Figures S1-S3.

Figure S1. Reasons for cessation (A) and switching (B) among patients prescribed clopidogrel at discharge.

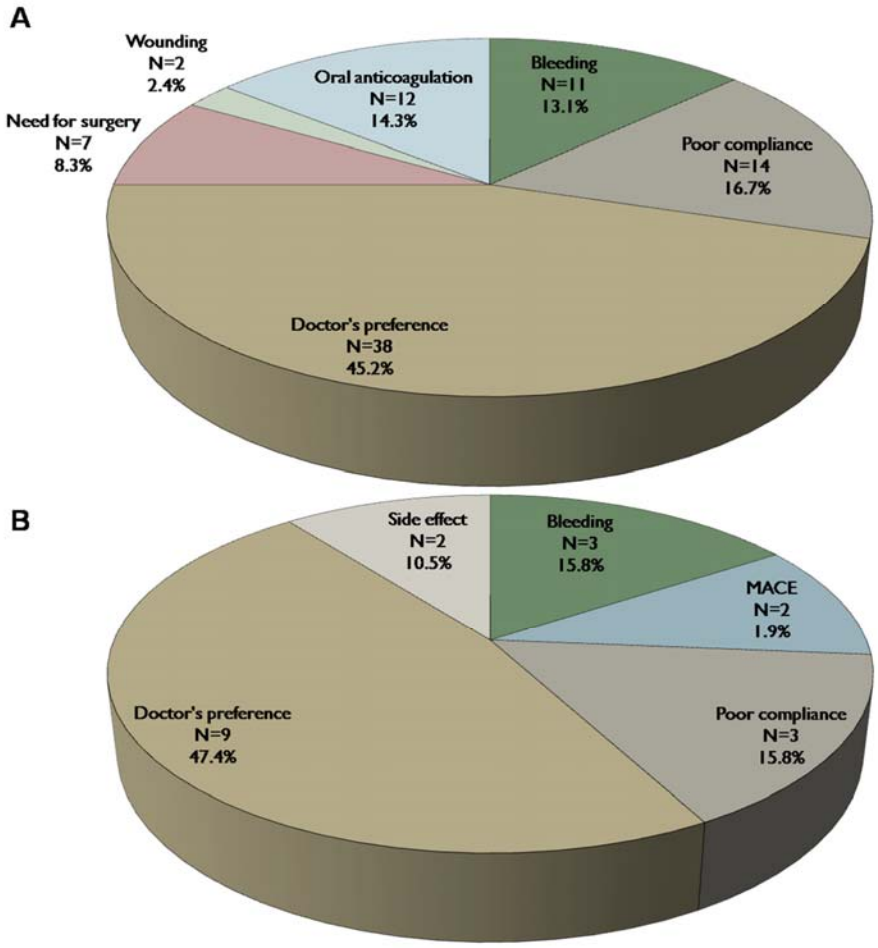


Figure S2. Reasons for cessation (A) and switching (B) among patients prescribed prasugrel at discharge.

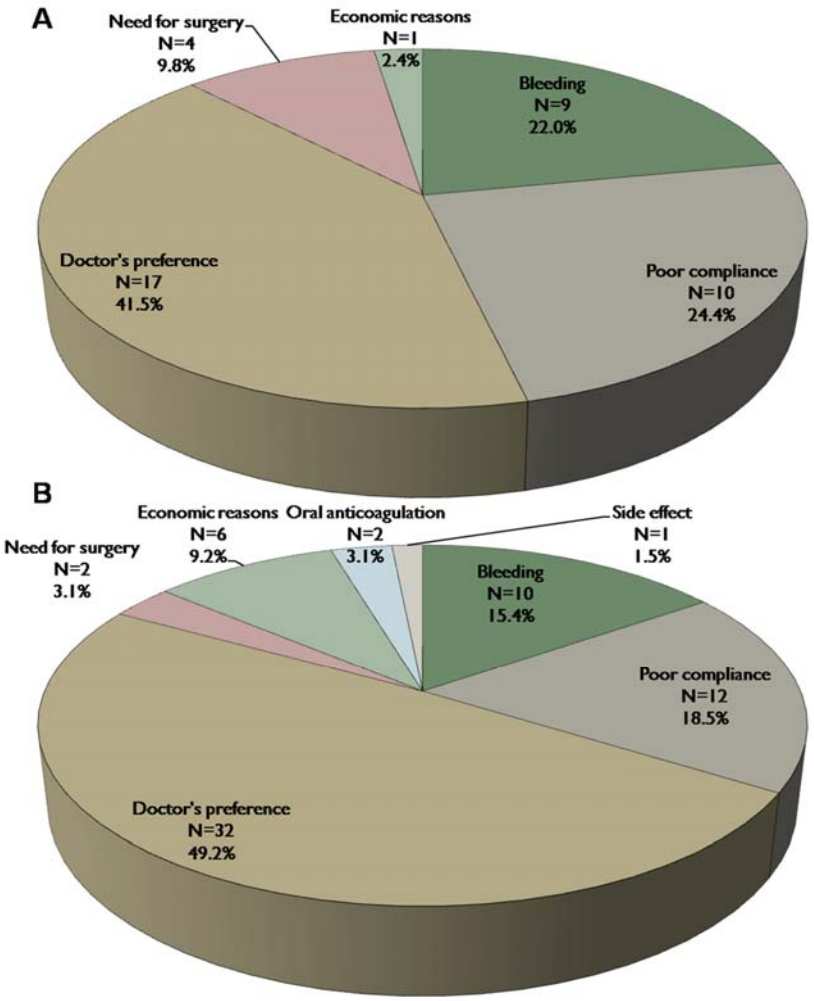
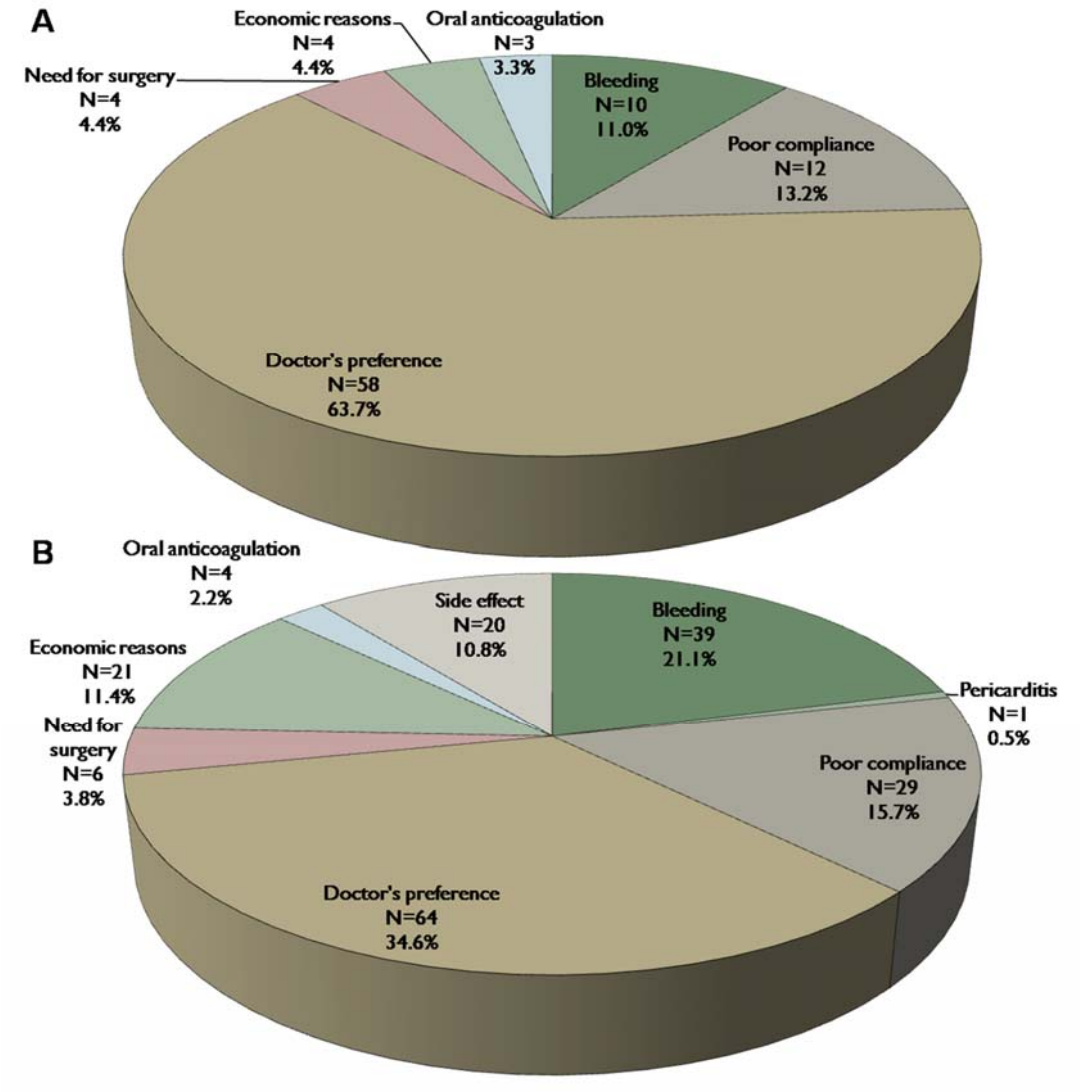


Figure S3. Reasons for cessation (A) and switching (B) among patients prescribed ticagrelor at discharge.



Doctor's preference, poor compliance and bleeding were the main reasons for cessation and switching. These were observed with a similar rate among different $P2Y_{12}$ receptor antagonists, apart from doctor's suggestion as a reason for cessation. The latter was more common among ticagrelor (63.7%), compared to clopidogrel (45.2%) and prasugrel (41.5) - discharged patients, *P* for trend .015.