

Supplemental Table S7. Evidence linking *CYP2C19* genotype with clopidogrel response (META-ANALYSES)

Study Design	Study Inclusion Date	Significant <i>CYP2C19</i> Genotype Risk	References
Meta-analysis of <i>CYP2C19</i> *2 and PPI: - 10 studies - 11,959 total patients - established CAD	October 2009	MACE: *2 carrier: OR: 1.29 (1.12-1.49) ST: *2 carrier: OR: 3.45 (2.14-5.57) Heterozygotes: OR: 3.34 (1.84-5.93) Homozygotes: OR: 4.68 (1.55-14.11)	Hulot, <i>et al.</i> 2010 (6)
Meta-analysis of <i>CYP2C19</i> *2: - 8 studies - 8,280 total patients - established CAD undergoing PCI	December 2009	MACE: *2 carrier: OR: 1.46 (1.01-2.13) Cardiac mortality: *2 carrier: OR: 2.07 (1.22–3.52) MI: *2 carrier: OR: 1.69 (1.09-2.61) ST: *2 carrier: OR: 3.81 (2.27-6.40) Ischemic stroke: *2 carrier: OR: 5.78 (1.62-20.65)	Jin, <i>et al.</i> 2011 (148)
Meta-analysis of <i>CYP2C19</i> *2: - 7 studies - 8,043 total patients - established CAD	January 2010	MACE: *2 carrier: RR: 1.96 (1.14-3.37) ST: *2 carrier: RR: 3.82 (2.23-6.54)	Sofi, <i>et al.</i> 2011 (86)
Meta-analysis of <i>CYP2C19</i> LOF alleles: - 9 studies - 9,685 total patients - established CAD (91% PCI)	August 2010	MACE: Heterozygotes: HR: 1.55 (1.11-2.17) Homozygotes: HR: 1.76 (1.24-2.50) ST: Heterozygotes: HR: 2.67 (1.69-4.22) Homozygotes: HR: 3.97 (1.75-9.02)	Mega, <i>et al.</i> 2010 (7)
Meta-analysis of <i>CYP2C19</i> LOF and GOF alleles: - 11 studies (for <i>CYP2C19</i> loss-of-function alleles)	October 2010	MACE: *2 carrier: Not significant.	Zabalza, <i>et al.</i> 2012 (149)

- 16,360 total patients (for <i>CYP2C19</i> loss-of-function alleles) - CAD and others		*17 carrier: HR: 0.75 (0.66-0.87) ST: *2 carrier: HR: 2.24 (1.52-3.30) Major bleeding: *17 carrier: HR: 1.26 (1.05-1.50)	
Meta-analysis of <i>CYP2C19</i> LOF and GOF alleles: - 12 studies - 18,529 total patients - established CAD	December 2010	MACE: LOF carrier: Not significant. ST: LOF carrier: OR: 1.77 (1.31-2.40)	Bauer, <i>et al.</i> 2011 (150)
Meta-analysis of <i>CYP2C19</i> LOF alleles: - 16 studies - 20,785 total patients - established CAD	September 2011	MACE: *2 carrier: OR: 1.42 (1.13-1.78) Heterozygotes: OR: 1.43 (0.93-2.19) Homozygotes: OR: 1.75 (1.23-2.51) Cardiac mortality: *2 carrier: OR: 2.18 (1.37–3.47) MI: *2 carrier: OR: 1.42 (1.12-1.81) ST: *2 carrier: OR: 2.41 (1.76-3.30)	Jang, <i>et al.</i> 2012 (151)
Meta-analysis of <i>CYP2C19</i> LOF and GOF alleles: - 32 studies - 42,016 total patients - unselected	October 2011	MACE: LOF carrier: Not significant. Stent thrombosis: LOF carrier: RR: 1.75 (1.50-2.03)	Holmes, <i>et al.</i> 2011 (89)
Meta-analysis of <i>CYP2C19</i> *2 and VerifyNow® platelet testing: - 7 studies (for <i>CYP2C19</i>) - 5,307 total patients (for <i>CYP2C19</i>) - established CAD	October 2011	MACE: *2 carrier: Not significant. Stent thrombosis: *2 carrier: OR: 2.65 (1.46-4.84)	Yamaguchi, <i>et al.</i> 2012 (152)
Meta-analysis of <i>CYP2C19</i> *2 and <i>ABCB1</i> c.3435C>T: - 14 studies - 19,601 total patients		MACE: *2 carrier: RR: 1.28 (1.06-1.54) Cardiac mortality: *2 carrier: RR: 3.21 (1.65–6.23)	Singh, <i>et al.</i> 2012 (153)

- established CAD		MI: *2 carrier: RR: 1.36 (1.12-1.65) ST: *2 carrier: RR: 2.41 (1.69-3.41)	
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CAD: coronary artery disease; GOF: gain-of-function; HR: hazard ratio; LOF: loss-of-function; MACE: major adverse cardiovascular event; MI: myocardial infarction; OR: odds ratio; PPI: proton pump inhibitor; RR: relative risk; ST: stent thrombosis.

* See above for description of ‘**Levels of Evidence Linking Genotype to Phenotype**’.