

## Suppl. Online Tables to Mallouk et al. “Prevalence of poor biological response to clopidogrel. A systematic review” (Thromb Haemost 2012; 107.3)

Table 1: Main characteristics of published studies.

Authors	Other references related to the main publication	Population	Acute or not acute patients	N	clopidogrel loading dose (mg)
Aleil B, 2008[35]	Aleil B et al. JTH 2009	PCI (ACS excluded)	Not acute	95	300 or 600
Alexopoulos D, 2011[36]		PCI	NA	210	0 or 300 or 600
Angiolillo DJ, 2004[37]	Angiolillo DJ et al. J Invasive cardiol 2004; Angiolillo DJ et al. Diabetes 2008	PCI	NA	23	600
Angiolillo DJ, 2005[38] (1st group*)	Angiolillo DJ et al. TR 2005	PCI	Not acute	52	300
Angiolillo DJ, 2007[39]	Angiolillo DJ et al. AJC 2008; Angiolillo DJ et al. TR 2009	PCI	Not acute	64	0
Angiolillo DJ, 2007[40]		Diabetes + CAD	Not acute	173	0
Angiolillo DJ, 2010[41]		Diabetes+ CAD	Not acute	306	0
Angiolillo DJ, 2011[42]		Diabetes	Not acute	35	600
Aradi D, 2010[43]		Coronarystent	NA	202	600
Aradi D, 2010[44]		Stable angina	Not acute	121	600
Behr T, 2011[45]		ACS or stable CAD	Both	1005	600
Bellemain-Appaix A, 2010[46]		ACS	Acute	96	300 or 600 or 900
Bernlochner I, 2010[47]	Sibbing D et al. TH 2009; Jaitner J et al. TH 2011	Stable CAD	Not acute	1223	0
Bjelland T, 2010[48]		Therapeutic hypothermia following cardiac arrest in ACS patients	Acute	25	300 or 600
Bonello L, 2008 300mg group[49]	Bonello L et al. JTH 2007;	PCI	Not acute	144	300
Bonello L, 2008[50]	Bonello L et al. TR 2008 TR 600mg group; Camoin-Jau L et al. ISTH 2007	PCI	Both	328	600
Bonello L, 2009[51]	Armero S et al. Platelets 2010; Bonello L et al. JACC 2010; Bonello L et al. TR 2010; Bonello-Palot N et al. AJC 2009	Refractory angina Silent ischemia ACS	Both	953	600
Bonello L, 2010[52]		ACS	Acute	411	600
Breet NJ, 2010[53]	Bouman H et al. Heart 2011; Breet NJ et al. Heart 2011; Elsenberg EH et al. TH 2009; Harmsze AM et al. Pharmacogenetics and Genomics 2010; Harmsze AM et al. TH 2010; Harmsze AM et al. Platelets 2011	PCI	Not acute	1069	0 or 300 or 600

Buonamici P, 2007[54]	Buonamici P et al. ISTH 2007	Drug eluting stent	Both	804	600
Campo G, 2007[55]		PCI	Both	143	300
Cayla G, 2008[56]		ACS	Acute	49	300
Cecchi E, 2009[57]		ACS	Acute	528	600
Cesari F, 2008[58]		ACS	Acute	372	300
Chen H, 2010[59]		CAD	NA	415	0
Chin SP, 2007[60]		Diabetes	Not acute	35	0
Collet JP, 2008[61]		ACS	Both	166	300 or 600 or 900
Cotton JM, 2010[62]		Unstableangina	Acute	49	300 or 600
Cuisset T, 2006[63]	Cuisset T et al. TH 2007; Cuisset T et al. JTH 2006; Cuisset T et al. TH 2007	CAD	Acute	146	300
Cuisset T, 2009[64]		ACS	Acute	35	0
Cuisset T, 2010[65]		ACS	Acute	27	600
De Miguel Castro A, 2009[66]		ACS	Acute	179	300
Djukanovic N, 2008[67]		Coronarystent	NA	17	0
Dropinski J, 2007[68]		CAD	Not acute	20	300
Drosch T, 2010[69]		Stable angina	Not acute	62	600
Dziewierz A, 2005[70]		Stable angina	Not acute	31	300
El Ghannudi S, 2010 [71]	El Ghannudi S et al. Atherosclerosis 2011; Morel O et al. JACC 2011	ACS or stable CAD	Both	461	300 or 600
Erlinge D, 2008[72]		CAD	Not acute	55	600
Eshtehardi P, 2010[73]		Stable angina orACS	Both	219	0 or 600
Feher G, 2007[74]		Chronic cardio or cerebrovascular disease	Not acute	157	0
Fontana P, 2008[75]		ACS	Both	81	0
Fontana P, 2010[76]		Stable cardiovascularisease	Not acute	548	0
Frere C, 2007[77]	Cuisset T et al. TH 2007; Cuisset T et al. JACC 2008; Frere C et al. AJC 2008; Cuisset T et al. TR 2009; Cuisset T et al. AJC 2009	ACS	Acute	195	600
Freyhofer M, 2011[78]		Stable and unstable angina	Both	300	0 or 300 or 600
Frolova NS, 2010[79]		ACS	Acute	75	300 or 600
Fu Q, 2010[80]		Coronarystent	NA	42	0
Fukuoka T, 2011[81]		Cardiovascularisease	NA	72	0
Furuta T, 2010[82]		Volunteers	Not acute	70	0
Furuta T, 2010[83]		Volunteers	Not acute	39	0
Gaborit B, 2009[84]		Diabetes	Not acute	124	0
Gajos G, 2010[85]		Stable CAD	Not acute	63	600

Ge H, 2011[86]		Stent	NA	352	NA
Geara A, 2011[87]		Hemodialysis patients	Not acute	21	0
Geisler T, 2006[88]		PCI and CAD	Both	379	600
Geisler T, 2008[89]		ACS Stable angina	Both	237	600
Geisler T, 2008[90]		ACS Stable angina	Both	480	600
Gladding P, 2008[91]		PCI	NA	60	600
Godino C, 2009[92]		Stable angina	Not acute	52	0
Gori AM, 2008[93]		ACS	Acute	398	600
Gremmel T, 2009[94]		Peripheral, coronary or carotid artery disease	NA	80	300
Gremmel T, 2009[95]		Coronary or carotid artery disease	NA	102	300 or 600
Gremmel T, 2010[96]	Gremmel T et al. Atherosclerosis 2009; Gremmel T et al. Heart 2010; Gremmel T et al. JTH 2010	PCI	NA	230	0 or 300 or 600
Grossmann R, 2004[97]		PCI	Not acute	57	300
Guha S, 2009[98]		ACS	Acute	210	0
Gurbel PA, 2003[16]	Gurbel PA et al. AJC 2003; Gurbel PA et al. Platelets 2003; Samara WM et al. 2005; Singla A et al. AHJ 2009	PCI	Not acute	96	300
Gurbel PA, 2005[99]	Dichiara ACC 2007; Gurbel PA et al. TR 2007; Tantry US et al. ISTH 2007	Coronary stent	Not acute	138	300
Gurbel PA, 2008[100]		PCI	Not acute	297	0 or 300 or 600
Gurbel PA, 2010[101]		Stable CAD	Not acute	98	300
Gurbel PA, 2010[102]		Coronary stent	Not acute	45	0
Gurbel PA, 2011[103]		Stable outpatient	Not acute	118	0
Hobson AR, 2009[104]		Volunteers and ACS	Both	54	600
Hoshino K, 2009[105]	Jinnai TZ et al. Circ J 2009	Coronary stent	NA	30	300
Htun P, 2011[106]		CAD or ACS	Both	1335	300 or 600
Hulot JS, 2010[107]		Volunteers	Not acute	30	0
Ivancic BT, 2006[108]		CAD and PCI	NA	244	150, 225, 300, 450 or 600
Ivancic BT, 2009[109]		Stable angina or AMI	Both	182	600
Jaitner J, 2011[110]		ACS	Acute	34	0
Jakubowski JA, 2008[111]	Brandt JT et al. AHJ 2007	Volunteers	Not acute	41	600
Jang S, 2007[112]		Implantation of heart devices	Not acute	66	0
Jeong YH, 2009[113]	Kang MK et al. J AtherosclerThromb 2010; Hwang SK et al. Circulation 2010; Hwang SJ et al. TR 2011	Coronary stent	NA	300	300

Jernberg T, 2006[114]		CAD	Not acute	23	300
Kang HS, 2010[115]		Intracranialaneurysm	NA	186	0 or 300
Kim H, 2009[116]		CAD or cerebrovascular disease	Acute	139	0
Kim IS, 2011[117]		AMI	Acute	126	600
Ko YG, 2011[118]		CAD Myocardial ischemia	NA	222	300
Koessler J, 2011[119]		stable CAD	Not acute	50	0 or 600
Kumar S, 2007[8]		CAD	Acute	39	300
Labarthe B, 2005[120]		Stable angina and volunteers	Both	32	0 or 300
Lau WC, 2004[121]	Lau WC et al. ACC 2003	PCI	Not acute	32	300
		Volunteers	Not acute	25	450
Lau WC, 2011[122]		Coronary stent	Not acute	85	0
		Volunteers	Not acute	45	300
Lee DH, 2008[123]		Neurovascular disease	Not acute	98	0 or 300 or 600
Lee JM, 2009[124]		CAD Myocardial ischemia	NA	387	300
Lee K, 2010[125]		stable PCI	NA	507	NA
Lee Y, 2007[126]		various	NA	43	NA
Lepantalo A, 2004[127]		PCI	NA	50	300
Lepantalo A, 2009[128]		PCI	NA	51	300
Lev EI, 2006[129]	Lev EI et al. TR 2007	PCI	Not acute	150	300
Lev EI, 2007[130]		PCI	NA	100	0
Lindvall G, 2009[131]		ACS	Acute	15	300 or 600
Linnemann B, 2010[132]		Stable PAOD	Not acute	22	0 or 300
Liu XL, 2010[133]	Wang ZJ et al. TR 2009	Stable angina	Not acute	722	300
Liu Y, 2011[134]		Coronarystent	NA	111	300
Lordkipanidze M, 2009[135]		Stable CAD	Not acute	85	0
Madsen EH, 2008[136]	Madsen EH et al. Platelets 2009	Volunteers	Not acute	20	600
Madsen EH, 2010[137]		PCI	NA	26	600
Madsen EH, 2011[138]		PAOD	Not acute	43	600
Malek LA, 2007[139]		PCI	Acute	34	600
Mangiaccapra F, 2010[140]		PCI	Not acute	250	600
Mangiaccapra F, 2010[141]	Cuisset T et al. AJC 2008; Hamilos M et al. JTT 2011; Mangiacapra F et al. AJC 2010; Muller O et al. AJC 2010	Stable angina	Not acute	338	600
Marcucci R, 2009[142]		ACS	Acute	683	600
Martin-Toutain I, 2007[9]		various	NA	60	NA
Maruyama H, 2011[143]		Neurovascular disease	Not acute	77	0
Matetzky S, 2004[3]		PCI	Acute	60	300
Matetzky S, 2008[144]		AMI	Acute	200	300

Michelson AD, 2009[145]		ACS	Acute	48	300
Migliorini A, 2009[146]		Stable CAD	Both	215	600
Mobley JE, 2004[147]		Heart catheterization	NA	50	300
Moerenhout C, 2010[148]		PCI	Not acute	242	300
Morel O, 2008[149]	Morel O et al. Ann cardangeol 2006	CAD	Acute	39	300
Morris A, 2009[150]		PCI	NA	17	0 or 300
Motovska Z, 2009[151]		Stable CAD	Not acute	105	600
Mueller T, 2007[152]		Cardiovascular disease	Not acute	77	0
		PCI	Not acute	40	300
Muller I, 2003[4]		PCI and CAD	Not acute	105	600
Müller-Schunk S, 2008 [153]		PCI	Acute	50	300
Neubauer H, 2008[154]		PCI	Not acute	161	600
Neubauer H, 2010[155]		Stable CAD or ACS	Both	504	600
Neubauer H, 2011[156]		PCI or ACS	Both	336	600
Nguyen TA, 2009[157]		PCI	Not acute	61	300 or 600
Palmerini T, 2010[158]		STEMI	Acute	54	300
Pandya DJ, 2010[159]		neuroendovascular procedure	NA	238	0 or 300 or 600
Paniccia R, 2007[160]	Marcucci R et al. ISTH 2007; Paniccia et al. ISTH 2007	CAD	Acute	1267	300
Papp E, 2007[161]		CAD, ischaemic stroke or PAOD	Acute	97	0
Park KW 2011[162]	Suh JW et al. JACC 2011	Coronary stent	Both	474	300 or 600
Patti G, 2011[163]		Stable angina or ACS	Both	25	600
Pettersen A, 2011[164]		CAD	Not acute	212	0
Polena S, 2008[165]		Heart catheterization or PCI	NA	171	0
Prabhakaran S, 2008[166]		PCI	NA	60	0
Preisman S, 2010[167]		Coronary artery bypass grafting	NA	34	0
Price M, 2008[168]		PCI	NA	380	0 or 600
Price M, 2009[169]		Stable angina or ischemia	Not acute	377	0 or 300
Price M, 2011[170]		stable CAD and NSTEMI	Both	5429	0 or 300 or 600
Ryu DS, 2010[171]		coil embolization or stent or both	Not acute	53	0
Saw J, 2008[172]		PCI	Not acute	209	300 or 600
Saw J, 2008[173]		PCI	NA	26	600
Schafer A, 2008[174]		CAD	Not acute	100	300 or 600
Schwonberg J, 2007[175]	Linnemann B et al. Atherosclerosis 2010	PAOD	Not acute	51	0

Serebruany VL, 2005[176]		Volunteers, coronary stent, heart failure or stroke	Not acute	544	0 or 300
Shenkman B, 2008[177]	Matetzky S et al. ISTH 2007	CAD	Acute	290	300
Shim CY, 2009 [178]	Kim JY et al. Circulation 2007	PCI	Acute	400	300
Sibbing D, 2008[179]	Muller K et al. Atherosclerosis 2010	scheduled for coronary angiography	Not acute	149	600
Sibbing D, 2010[180]	Sarafoff N et al. AHJ 2011; Shulz S et al. AHJ 2010; Sibbing D et al. TH 2010; Sibbing D et al. JACC 2009	CAD Drug eluting stent	Not acute	2533	600
Siller-Matula J, 2009[181]		Stable angina	Not acute	30	0
Siller-Matula J, 2010[182]	Siller-Matula J et al. JACC 2008 Siller-Matula J et al. AHJ 2009	CAD and PCI	Both	416	600
Sirotkina OV, 2009[183]		Thrombotic and cardiovascular diseases and volunteers	Both	324	NA
Spiewak M, 2009[184]		ACS	Acute	98	300 or 600
Staritz P, 2009[185]		PCI	NA	557	0 or 300 or 450 or 600
Storey RF, 2010[186]		ACS	Acute	12	300 or 600
Thomson VS, 2008[187]		coronary angioplasty	Not acute	65	300
Trenk D, 2008[188]		PCI	NA	802	600
Tsukahara K, 2011[198]		CAD ACS	Both	461	0
Valgimigli M, 2009[189]	Campo G et al. JACC 2010	CAD	Not acute	1277	300 or 600
Valgimigli M, 2010[190]		ACS	Acute	73	300 or 600
Van Werkum JW, 2010 [191]		Stable angina	Not acute	21	600
		PCI	NA	451	0-300
Von Lewinski F, 2009[192]		Cerebrovascular disease	NA	47	0
Von pape KW, 2007[193]		PCI	NA	70	300 or 450 or 600
Wang L, 2010[194]		Drug eluting stent	NA	154	300
Weerakkody GJ, 2007[14]		Volunteers	Not acute	112	300
Woo KS, 2010[195]		ACS and stable CAD	Both	66	300
Ziegler S, 2002[196]		PCI + PAOD	Not acute	46	0
Zuern CS, 2010[197]		CAD	Both	1425	600
<p>PCI: percutaneous coronary intervention; ACS: acute coronary syndrome; CAD: coronary artery disease; AMI: acute myocardial infarction; NSTEMI: non-ST segment elevation; PAOD: peripheral arterial occlusive disease; Acute or not acute patients: acute or stable state of cardiovascular disease at inclusion; N: number of subjects; LD: loading dose; NA: not available. * Prevalence of poor biological response to clopidogrel only available for the 1<sup>st</sup> group.</p>					

Table 2: Results of poor biological response to clopidogrel (PBRC) by assay in each study.

Authors	Assayused	Definition of clopidogrel PBRC	ADP concentration ( $\mu$ M)	Time of assay	PBRC n/N(%)
Aleil B, 2008[35]	VASP	PRI $\geq$ 69%		2 wks	32/95 (33.7)
Alexopoulos D, 2011[36]	Verifynow <sup>®</sup>	PRU $\geq$ 235		24 hrs	71 /210 (33.8)
Angiolillo DJ, 2004[37]	LTA	IPA <10%	6	24 hrs	1/23 (4.3)
	GPIIbIIIa/PAC1	Inhibition <10%			3/23 (13.0)
	P selectin	Inhibition <10%			0/23 (0.0)
Angiolillo DJ, 2005[38] (1st group)	LTA	IPA <10%	6	24 hrs	9/52 (17.3)
Angiolillo DJ, 2007[39]	LTA	Aggmax>50%	20	2-4 hrs	40/64 (62.5)
Angiolillo DJ, 2007[40]	LTA	Aggmax>62%	20	2-4 hrs	45/173 (26.0)
Angiolillo DJ, 2010[41]	LTA	Aggmax> 63%	20	2-4 hrs	76/306 (24.8)
Angiolillo DJ, 2011[42]	LTA	Aggmax> 50%	20	24 hrs	26/33 (78.8)
	VASP	PRI > 50%			25/35 (71.4)
	Verifynow <sup>®</sup>	PRU > 235		24 hrs	19/35 (54.3)
Aradi D, 2010[43]	LTA	Aggmax $\geq$ 34%	5	12-18 hrs	85/202 (42.1)
Aradi D, 2010[44]	VASP	PRI $\geq$ 50%		12-18 hrs	56/121 (46.6)
Behr T, 2011[45]	Multiplate <sup>®</sup>	Aggregation $\geq$ 35 AU (men), 50 AU (women)		6 hrs	118/1005 (11.7)
Bellemain-Appaix A, 2010[46]	LTA	AD Aggmax< 10%	20	24 hrs	9/96 (9.4)
Bernlochner I, 2010[47]	Multiplate <sup>®</sup>	Aggregation $\geq$ 468 AU*min		NA	230/1223 (18.8)
Bjelland T, 2010[48]	VASP	PRI $\geq$ 50%		24 hrs	25/25 (100.0)
Bonello L, 2008[49]	VASP	PRI > 50%		25+/-3 hrs	29/144 (20.1)
Bonello L, 2008[50]	VASP	PRI > 50%		24 hrs	162/328 (49.4)
Bonello L, 2009[51]	VASP	PRI > 50%		6-24 hrs	429/953 (45.0)
Bonello L, 2010[52]	VASP	PRI $\geq$ 50%		6-12 hrs	257/411 (62.5)
Breet NJ, 2010[53]	LTA	Aggmax $\geq$ 64%	20	NA	392/1051 (37.3)
	Verifynow <sup>®</sup>	PRU $\geq$ 236			406/1052 (38.6)
	Plateletworks <sup>®</sup>	Inhibition $\geq$ 80%			262/606 (43.2)
	PFA-100	Closure time < 116s			360/812 (44.3)
Buonamici P, 2007[54]	LTA	Aggmax $\geq$ 70%	10	12-18 hrs	105/804 (13.1)
Campo G, 2007[55]	LTA	IPA < 20%		5-7d	48/143 (33.6)
Cayla G, 2008 [56]	VASP	PRI $\geq$ 72%		4d	12/49 (24.49)
Cecchi E, 2009[57]	LTA	Aggmax> 70%	10	6 hrs	101/528 (19.1)
Cesari F, 2008[58]	LTA	Aggmax> 70%	10	24-48 hrs	127/372 (34.1)
Chen H, 2010[59]	LTA	IPA $\leq$ 10%	na	NA	187/415 (45.1)
Chin SP, 2007[60]	Impedance aggregometry	$\leq$ 10%		2 wks	6/28 (21.4)
Collet JP, 2008 (LD 300mg)[61]	LTA	IPA < 10%	20	4 hrs	13/55 (23.6)
Collet JP, 2008 (LD 600mg)[61]					11/54 (20.4)
Collet JP, 2008 (LD 900mg)[61]					3/57 (5.3)
Cotton JM, 2010[62]	Verifynow <sup>®</sup>	PRU > 240		12 hrs	29/49 (59.2)
Cuisset T, 2006[63]	LTA	Aggmax>70%	10	NA	36/146 (24.7)

Cuisset T, 2009[64]	VASP	PRI > 50%		1m	12/35 (34.3)
Cuisset T, 2010[65]	VASP	PRI > 50%		1m	10/27 (39.0)
	Verifynow®	PRU > 240		1m	8/23 (33.0)
De Miguel Castro A, 2009[66]	Verifynow®	PRU > 175		6 hrs	64/179 (35.7)
Djukanovic N, 2008[67]	VASP	PRI > 50%		7d	5/17 (29.4)
Dropinski J, 2007[68]	LTA	IPA < 10%	10	7d	5/20 (25.0)
Drosch T, 2010[69]	LTA	Aggmax < 35%	20	6 hrs	27/62 (43.6)
Dziewierz A, 2005[70]	Plateletworks®	Inhibition ≤ 10%		24 hrs	7/31 (22.6)
El Ghannudi S, 2010 [71]	VASP	PRI ≥ 61%		6 hrs	184/461 (39.9)
Erlinge D, 2008[72]	LTA	Aggmax > 50%	5	1 hr	35/53 (66.0)
	VASP	PRI > 50%			44/53 (83.0)
Eshtehardi P, 2010[73]	Multiplate®	Aggregation > 309 AU*min		12-18 hrs	33/219 (15.1)
Feher G, 2007[74]	LTA	Aggmax > 60%	5-10	NA	35/157 (22.3)
Fontana P, 2008[75]	VASP	PRI ≥ 50%		15d	45/81 (55.6)
Fontana P, 2010[76]	VASP	PRI > 50%		NA	227/435 (51.9)
Frere C, 2007[77]	LTA	Aggmax > 70%	10	12 hrs	54/181 (29.8)
	VASP	PRI > 53%			106/195 (54.4)
Freyhofer M, 2011[78]	Multiplate®	Aggregation ≥ 470 AU*min		6-24 hrs	57/196 (29.1)
	VASP	PRI > 60.2%			186/300 (62.0)
Frolova NS, 2010[79]	LTA	IPA < 10%	20	NA	21/75 (28.0)
Fu Q, 2010[80]	VASP	PRI > 50%		NA	20/42 (47.6)
Fukuoka T, 2011[81]	LTA	Aggmax ≥ 66%	4	NA	13/72 (18.1)
Furuta T, 2010[82]	LTA	IPA < 20%	20	4 hrs	25/70 (35.7)
Furuta T, 2010[83]	LTA	IPA < 30%	20	4 hrs	8/39 (20.5)
Gaborit B, 2009[84]	LTA	Aggmax > 70%	10	NA	22/124 (17.7)
Gajos G, 2010[85]	LTA	AD Aggmax < 10%	5	12 hrs	19/63 (30.2)
	VASP	PRI ≥ 69%			10/63 (15.9)
Ge H, 2011[86]	LTA	Aggmax > 70%	NA	6mo.	12/65 (18.5)
Geara A, 2011[87]	Verifynow®	Inhibition < 20%		NA	18/21 (85.7)
Geisler T, 2006[88]	LTA	IPA < 30%	20	>6 hrs	22/379 (5.8)
Geisler T, 2008[89]	LTA	Aggmax > 47%	20	6 hrs	175/237 (73.8)
Geisler T, 2008[90]	LTA	Aggmax > 63.7%	20	6 hrs	53/480 (11.0)
Gladding P, 2008[91]	Verifynow®	Inhibition < 10%		7 hrs	8/60 (13.3)
Godino C, 2009[92]	P selectin assay and GPIIbIIIa/PAC1	Expression > 21.4% and PAC-1 binding > 1.7%		NA	6/52 (11.5)
Gori AM, 2008[93]	PFA-100	Closure time < 68s		12-18 hrs	22/398 (5.5)
Gremmel T, 2009[94]	Impact R test	Surface coverage ≤ 2%		49-51 hrs	21/80 (26.3)
	Multiplate®	Aggregation ≥ 68 AU			20/80 (25.0)
	VASP	PRI ≥ 69%			20/80 (25.0)
	Verifynow®	PRU ≥ 273			20/80 (25.0)
Gremmel T, 2009[95]	Verifynow®	PRU ≥ 286		24 hrs	26/102 (25.5)
Gremmel T, 2010[96]	Impact R test	Surface coverage ≤ 1.9%		24 hrs	55/222 (25.0)
	LTA	Aggmax ≥ 62%	10		57/229 (25.0)
	VASP	PRI ≥ 64%			57/228 (25.0)
	Verifynow®	PRU ≥ 268			57/229 (25.0)
Grossmann R, 2004[97]	VASP	PRI > 50%		≤4 hrs	10/57 (17.5)
Guha S, 2009[98]	LTA	Aggmax ≥ 50%	10	2-4 hrs	101/210 (48.1)

Gurbel PA, 2003[16]	LTA	AD Aggmax $\leq$ 10%	5	24 hrs	29/92 (31.5)
Gurbel PA, 2005[99]	LTA	AD Aggmax < 10%	20	>24 hrs	17/138 (12.3)
Gurbel PA, 2008[100]	LTA	Aggmax > 59%	20	NA	101/297 (34.0)
Gurbel PA, 2010[101]	LTA	AD Aggmax $\leq$ 10%	20	6-8 hrs	41/98 (41.8)
Gurbel PA, 2010[102]	LTA	Aggmax $\geq$ 43%	5	16-18 hrs	20/45 (44.4)
Gurbel PA, 2011[103]	LTA	Aggmax > 59%	20	NA	40/118 (33.9)
Hobson AR, 2009[104]	TEG	Inhibition < 30%		6 hrs	16/54 (29.6)
Hoshino K, 2009[105]	LTA	IPA < 10%	5	24 hrs	6/30 (20.0)
Htun P, 2011[106]	LTA	Aggmax > 47.5%	20	6-24 hrs	326/1335 (24.4)
Hulot JS, 2010[107]	LTA	IPA < 40%	10	NA	9/30 (30.0)
Ivandic BT, 2006[108]	Impedance aggregometry	> 5 Ohms		NA	40/244 (16.4)
Ivandic BT, 2009[109]	Impedance aggregometry	> 5 Ohms		12-24 hrs	34/182 (18.7)
Jaitner J, 2011[110]	LTA	Aggmax $\geq$ 53%	5	24 hrs	4/31 (12.9)
Jakubowski JA, 2008[111]	LTA	Aggmax > 75%	5	any time	0/35 (0.0)
		AD Aggmax < 15%	20	4 or 24 hrs	2/33 (6.1)
	VASP	PRI > 50%		24 hrs	11/33 (33.3)
Jang S, 2007[112]	LTA	Aggmax > 40%	5	NA	13/50 (26.0)
Jeong YH, 2009[113]	LTA	Aggmax > 50%	5	12 hrs	65/300 (21.7)
Jernberg T, 2006[114]	LTA	IPA < 25%	5	4 hrs	6/23 (26.1)
Kang HS, 2010[115]	Verifynow®	PRU > 332		24 hrs	47/186 (25.3)
Kim H, 2009[116]	Verifynow®	Inhibition < 20%		NA	54/139 (38.8)
Kim IS, 2011[117]	LTA	Aggmax > 59%	20	3d	58/126 (46.0)
Ko YG, 2011[118]	Verifynow®	PRU $\geq$ 274		12 à 24 hrs	121/222 (54.5)
Koessler J, 2011[119]	PFA P2Y*	Closure time $\leq$ 106 s		NA	8/50 (16.0)
	VASP	PRI > 50%		NA	19/50 (38.0)
Kumar S, 2007[8]	LTA	IPA < 10%	5-10	3d	1/39 (2.6)
Labarthe B, 2005[120]	LTA	IPA < 10%	2.5-10	24 hrs or 7d	10/32 (31.3)
	P selectin	Inhibition < 10%			2/32 (6.3)
	GPIIb/IIIa/PAC1	Inhibition < 10%			6/32 (18.8)
Lau WC, 2004[121]	LTA	IPA < 10%	20	5d	7/32 (21.9)
	Cellcounter and Plateletworks®	Inhibition < 10%		4 hrs	4/25 (16.0)
Lau WC, 2011[122]	LTA	Aggmax > 50%	20	NA	20/85 (23.5)
		IPA $\leq$ 30%		6 hrs	10/45 (22.2)
Lee DH, 2008[123]	Verifynow®	Inhibition < 40%		1-10d	42/98 (42.9)
Lee JM, 2009[124]	Verifynow®	Inhibition < 20%		12 hrs	112/387 (28.9)
Lee K, 2010[125]	Verifynow®	Inhibition < 20%		2 wks	153/507 (30.2)
Lee Y, 2007[126]	Verifynow®	Inhibition < 10%		7d	13/43 (30.2)
Lepantalo A, 2004[127]	LTA	AD Aggmax < 10%	5	NA	20/50 (40.0)
Lepantalo A, 2009[128]	LTA	IPA < 10%	5	5d	10/51 (19.6)
Lev EI, 2006[129]	LTA	AD Aggmax $\leq$ 10%	5-20	20-24 hrs	36/150 (24.0)
Lev EI, 2007[130]	TEG	Inhibition $\leq$ 20%		>3d	34/100 (34.0)
Lindvall G, 2009[131]	Cellcounter and Plateletworks®	Inhibition < 10%		5d	4/15 (26.7)
Linnemann B, 2010[132]	PFA P2Y*	Closure time < 87s		1-24 hrs	8/40 (20.0)
Liu XL, 2010[133]	LTA	IPA $\leq$ 10%	5	24 hrs	105/722 (14.5)
Liu Y, 2011[134]	LTA	IPA < 10%	20	12 hrs	42/111 (37.8)
	P selectin assay	Inhibition < 10%			30/111 (27.0)
Lordkipanidze M, 2009[135]	LTA	Aggmax > 66.9%	20	2-12 hrs	1/85 (1.2)
	Verifynow®	PRU > 349			2/85 (2.4)

Madsen EH, 2008[136]	LTA	Aggmax > 50%	5	>2 hrs	2/20 (10.0)
Madsen EH, 2010[137]	LTA	Aggmax > 50%	5	> 16 hrs	2/26 (7.7)
	TEG	Inhibition < 30%		24 hrs	3/26 (11.5)
	Verifynow®	PRU > 264			1/26 (3.8)
Madsen EH, 2011[138]	LTA	Aggmax > 70%	20	2 hrs	0/43 (0.0)
	Multiplate®	Aggregation > 468 AU*min			10/43 (23.3)
Malek LA, 2007[139]	PFA-100	Closure time < 300 s		7d	24/34 (70.6)
Mangiacapra F, 2010[140]	Verifynow®	PRU ≥ 240		6 hrs	78/250 (31.2)
Mangiacapra F, 2010[141]	Verifynow®	PRU ≥ 240		12 hrs	101/338 (29.9)
Marcucci R, 2009[142]	Verifynow®	PRU ≥ 240		24 hrs	219/683 (32.1)
Martin-Toutain I, 2007[9]	PFA-100	Closure time < 120 s		NA	31/60 (51.7)
	Multiplate®	Aggregation > 240 AU*min			16/60 (26.7)
Maruyama H, 2011[143]	Verifynow®	Inhibition < 20%		NA	18/77 (23.4)
Matetzky S, 2004[3]	LTA	IPA < 25%	5	6d	15/60 (25.0)
Matetzky S, 2008[144]	LTA	Aggmax ≥ 80%	5	4d	30/200 (15.0)
Michelson AD, 2009[145]	LTA	IPA < 20%	20	1 hr	12/12 (100.0)
	VASP	PRI > 50%			120/125 (96.0)
Migliorini A, 2009[146]	LTA	Aggmax ≥ 70%	10	12-18 hrs	40/215 (18.6)
Mobley JE, 2004[147]	LTA+ TEG + Plateletworks®	Inhibition < 10%		NA	15/50 (30.0)
Moerenhout C, 2010[148]	PFA-100	Closure time < 71s		12 hrs	17/242 (7.0)
Morel O, 2008[149]	VASP	PRI > 53%		5d	28/39 (71.8)
Morris A, 2009[150]	VASP	PRI > 70%		24 hrs	9/17 (52.9)
	Verifynow®	PRU > 264			10/17 (58.8)
Motovska Z, 2009[151]	VASP	PRI ≥ 50%		NA	35/105 (33.3)
Mueller T, 2007[152]	Multiplate®	Aggregation > 162 AU*min		NA	29/77 (37.7)
	VASP	PRI > 75%		6 hrs	7/77 (9.1)
	P selectin	Expression > 21 FU		NA	42/77 (54.5)
	Multiplate®	Aggregation > 162 AU*min		2d	17/40 (42.5)
	VASP	PRI > 75%			15/40 (37.5)
Neubauer H, 2008[154]	Impedance aggregometry	> 5 Ohms		48 hrs	38/161 (23.6)
Neubauer H, 2010[155]	Impedance aggregometry	> 5 Ohms		48 hrs	155/504 (30.8)
Neubauer H, 2011[156]	Impedance aggregometry	> 5 Ohms		48 hrs	69/336 (20.5)
Nguyen TA, 2009[157]	LTA	Aggmax > 67%	20	7d	13/120 (10.8)
Palmerini T, 2010[158]	VASP	PRI > 50%		2 hrs	44/54 (81.5)
Pandya DJ, 2010[159]	Verifynow®	Inhibition ≤ 50%		24 hrs	142/216 (65.7)
Paniccia R, 2007[160]	PFA-100	Closure time < 68s		24-48 hrs	153/626 (24.4)
	Verifynow®	PRU ≥ 264			313/1267 (24.7)
	LTA	Aggmax ≥ 66%	10		294/1267 (23.2)
Papp E, 2007[161]	LTA	Aggmax > 62% (ADP 5-10)	5-10	NA	38/97 (39.2)
Park KW 2011[162]	Verifynow®	PRU > 240		NA	213/474 (44.9)
Patti G, 2011[163]	Verifynow®	PRU ≥ 240		30d	3/25 (12.0)
Pettersen A, 2011[164]	VASP	PRI ≥ 55%		24 hrs	45/155 (29.0)
	Verifynow®	PRU ≥ 170			67/212 (31.6)
Polena S, 2008[165]	Plateletworks®	Inhibition < 35%		NA	67/171 (39.2)

Prabhakaran S, 2008[166]	Verifynow®	Inhibition $\leq$ 40%		NA	28/55 (50.9)
Preisman S, 2010[167]	TEG	Maximal platelet activation $>$ 50%		NA	29/34 (85.3)
Price M, 2008[168]	Verifynow®	PRU $\geq$ 235		12 hrs	122/380 (32.1)
Price M, 2009[169]	Verifynow®	PRU $\geq$ 235		NA	134/377 (35.5)
Price M, 2011[170]	Verifynow®	PRU $\geq$ 230		12-24 hrs	2214/5429 (40.8)
Ryu DS, 2010[171]	Verifynow®	Inhibition $<$ 40%		NA	33/53 (62.3)
Saw J, 2008[172]	Verifynow®	Inhibition $<$ 19%		$>$ 2 hrs	51/198 (25.8)
Saw J, 2008[173]	LTA	AD Aggmax $<$ 10%	5	16-24 hrs	4/26 (15.4)
Schafer A, 2008[174]	LTA	Aggmax $>$ 50%	20	2-4 hrs	47/100 (47.0)
	VASP	PRI $>$ 50%			69/100 (69.0)
Schwonberg J, 2007[175]	LTA	Aggmax $>$ 55%	2	NA	18/51 (35.3)
Serebruany VL, 2005[176]	LTA	Aggmax $>$ 70%	5	2 hrs	51/544 (9.4)
Shenkman B, 2008[177]	LTA	IPA $\leq$ 10%	5.5	4d	110/290 (37.9)
	Impact R test	Surface coverage $\leq$ 2.8%			107/290 (36.9)
Shim CY, 2009[178]	Verifynow®	Inhibition $<$ 20%		NA	112/379 (29.6)
Sibbing D, 2008[179]	LTA	Aggmax $>$ 53%	5	2 hrs	38/149 (25.5)
	Multiplate®	Aggregation $>$ 398.5 AU*min			37/149 (24.8)
Sibbing D, 2010[180]	Multiplate®	Aggregation $\geq$ 468 AU*min		2 hrs	428/2533 (16.9)
Siller-Matula J, 2009[181]	Impact R test	Surface coverage $\leq$ 2.8%		NA	5/30 (18.0)
	Multiplate®	Aggregation $>$ 160 AU*min		NA	22/30 (73.3)
	PFA-100	Closure time $<$ 120 s		NA	20/30 (66.7)
	VASP	PRI $>$ 69%		NA	8/30 (26.7)
Siller-Matula J, 2010[182]	Multiplate®	Aggregation $\geq$ 540 AU*min		48 hrs	56/402 (13.9)
	VASP	PRI $\geq$ 42%			262/416 (63.0)
Sirotkina OV, 2009[183]	LTA	Aggmax $\geq$ 60%	10	NA	60/324 (18.5)
Spiewak M, 2009[184]	PFA-100	Closure time $<$ 130 s		6 hrs	30/98 (30.6)
Staritz P, 2009[185]	Impedance agregometry	$>$ 5 Ohms		NA	72/557 (12.9)
Storey RF, 2010[186]	LTA	Aggmax $>$ 50%	20	12 hrs	4/8 (50.0)
	VASP	PRI $>$ 50%		4 hrs	4/7 (57.1)
	Verifynow®	PRU $>$ 235			6/9 (66.7)
Thomson VS, 2008[187]	LTA	IPA $\leq$ 10%	10	24 hrs	19/65 (29.2)
Trenk D, 2008[188]	LTA	Aggmax $>$ 14%	5	1d	217/765 (28.4)
Tsukahara K, 2011[198]	Screen filtration method	Platelet aggregation threshold index $<$ 6.6 $\mu$ M		NA	43/142 (30.3)
Valgimigli M, 2009[189]	Verifynow®	Inhibition $<$ 40 %		2-6 hrs	174/644 (27.0)
Valgimigli M, 2010[190]	LTA	Aggmax $\geq$ 50%	5	14-30d	5/73 (6.8)

Van Werkum JW, 2010 [191]	Impact R test	Surface coverage $\leq$ 2.8%		6 hrs	13/21 (61.9)
		Surface coverage $\leq$ 2.8%		24 hrs	250/451 (55.4)
	LTA	Aggmax $\geq$ 70%	20	24 hrs	5/21 (23.8)
	VASP	PRI $\geq$ 50%		6 hrs	7/21 (33.3)
Von Lewinski F, 2009[192]	LTA	Aggmax $\geq$ 50%	10	NA	17/47 (36.2)
Von pape KW, 2007[193]	Multiplate <sup>®</sup>	Aggregation > 540 AU*min		NA	7/70 (10.0)
Wang L, 2010[194]	LTA	AD Aggmax $\leq$ 10%	20	24 hrs	32/154 (20.8)
Weerakkody GJ, 2007[14]	LTA	IPA < 20%	20	4-5 hrs or 24 hrs	50/112 (44.6)
Woo KS, 2010[195]	LTA	Aggmax > 50%	10	12 hrs	6/66 (9.1)
	VASP	PRI $\geq$ 50%			32/66 (48.5)
	Verifynow <sup>®</sup>	Inhibition < 20%			28/66 (42.4)
Ziegler S, 2002[196]	PFA-100	Closure time < 120s		3m	11/46 (23.9)
Zuern CS, 2010[197]	LTA	Aggmax > 49.4%	20	20-24 hrs	475/1425 (33.3)

n: number of patients with PBRC; N: number of patients tested with a platelet function assay; LTA: Light Transmittance Aggregometry assay; Aggmax: maximal aggregation, IPA: relative Inhibition of Platelet Aggregation from baseline; AD Aggmax: Absolute Difference of maximal Aggregation between baseline and clopidogrel dose; PRU: P2Y12 Reaction Unit; TEG: Thromboelastography; AU: arbitrary aggregation units; FU: fluorescence units; NA : not available; LD: loading dose.