**Appendix Table E29. Study design characteristics of studies assessing the predictive ability of VerifyNow in patients with ischemic heart disease**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author****Year** **PMID****Country****Study Name** | **Study design**  | **Multicenter (yes/no)** | **Recruitment method** | **Sampling population** | **Enroment period**  | **Mean or median (state which follow up duration)** | **Setting**  | **A Priori power analysis performed? (if yes, was accrual 80% of target or higher)** | **Funding** |
| Cotton, 2010{Cotton, 2010 75 /id}20406238UKNR | prospective cohort  | No  | Patients with ACS history  | Patients with ACS history | Jan-June , 2008 | 6 months | Hospital inpatient | NR | NR |
| Angiolillo, 2007{Angiolillo, 2008 180 /id}18312754USAOPTIMUS | prospective cohort  | No  | Patients underwent PCI and were treated with standard clopidogrel  | Patients underwent PCI and were treated with standard clopidogrel | NR | 1 months | Hospital inpatient | Yes; Accrual>80% | NR |
| Breet ,2010{Breet, 2010 86 /id}20179285NetherlandsPOPULAR | prospective cohort  | No  | Patients scheduled for PCI with stent implantation  | Patients with PCI and stent implantation  | Dec 2005- Dec 2007 | 1-year  | Hospital inpatient | Yes. 80% | NR |
| Kim, 2010{Kim, 2010 241 /id}20449634KoreaNR | prospective cohort  | no | consecutivelyenrolled | unselected patients treatedwith coronary stenting for symptomatic coronary artery disease, including acute myocardial infarction (AMI) and chronic clopidogrel therapy | December 2007to June 2009 | 6 months | Department ofCardiology of the Gyeongsang National University hospital inpatient | NR | NR |
| Ko, 2011{Ko, 2011 26 /id}21315223KoreaNR | observational study | YES | Consecutive patients | Patients undergoing percutaneous coronary intervention (PCI) for CAD | Aug-Oct 2009 | 30 days for all patients | followup after intervention | NO | Non-industry only - grant from Government & non-profit foundation |
| Campo, 2010{Campo, 2010 58 /id}2095132010 sites in Italy, Belgium, France, Sprain3T/2R trial | Sub-study of RCT | Yes  | Patients scheduled for coronary angiography or PCI | Patients scheduled for coronary angiography or PCI | Feb, 2006- June, 2008  | 1-year  | Hospitals inpatient  | NR | Partly industry |
| Campo, 2011{Campo, 2011 13 /id}21679849ItalyNR | Prospective cohort | No | Consecutive | Patients undergoing PCI for ischemic heart disease who had a baseline and 1 month PRU evaluation and a baseline blood sample for genotyping | December 2008 to May 2009 | Max, 1 year | Inpatient followed by outpatient followup | NO | NR but authors have COIs with drug companies |
| Cuisset, 2008{Cuisset, 2008 168 /id}18549843BelgiumNR | Prospective observational study | NO | Consecutive patients | Patients undergoing percutaneous coronary intervention (PCI) for ACS | May – Oct 2007 | NR | Followup after intervention  | YES; Accrual >80% | NR |
| de\_Miguel\_Castro, 2009{de Miguel, 2009 136 /id}19232185SpainNR | Prospective observational study | NO | NR | Patients with acute NSTE ACS undergoing coronary angiography | Jan 2005 – Feb 2006 | 12 month followup | Followup  | YES;Accrual=161/175 (92%) | non-industry (grant from the Fundación Investigación Sanitaria (Health Research Foundation) in León, Spain.) |
| Gladding, 2008{Gladding, 2008 149 /id}19463375New ZealandSecondary (but not subgroup) analysis of PRINC (Plavix Response in Coronary Intervention) Trial | 2 by 2 factorial, randomized, placebo-controlled, double-blind study over the ﬁrst 24 h, followed by a 1-week randomized, placebo-controlled, double-blind study | NR | Consecutive | Patients undergoing elective PCI | NR | 7 Days total | Inpatient, with outpatient followup after the inpatient procedure | YES[YES (“~80%”)] | Non-industry only except the VerifyNow plateletfunction analyzer was provided by Sanofi Aventis, New Zealand. |
| Huczek, 2011{Huczek, 2011 239 /id}21443410PolandNR | Prospective | NO | NR | Patients undergoing percutaneous coronary intervention (PCI) for ACS | July 2008 until December 2009 | Max: 30 day followup | followup after intervention | NO | Non-industry (Polish Ministry of Science and Higher Education [No. N402 4400 33]) |
| Kim, 2011{Kim, 2011 5 /id}21786434South KoreaCiLostazol administration before pErcutaneous coronAry intervention for Reduction of periprocedural myonecrosis trial (CLEAR trial) | RCT | NO | Consecutive | patients with typical angina, not on statins and without elevated levels of cardiac enzymes scheduled for drug-eluting stent (DES) implantation in de novo coronary artery lesions | June 2007-May 2009 | Total 6 mo | Outpatient visits and inpatient during PCI | YES [YES] | Partly industry |
| Lee, 2009{Lee, 2009 230 /id}20049136South KoreaNR | Prospective | NO | Consecutive | ACS patients undergoing DES stenting | Jan. 2006-Dec. 2007 | Total 6 mo | In hospital for those who were continually hospitalized or outpatient followup for those who were discharged | NO | NR |
| Mangiacapra, 2010{Mangiacapra, 2010 83 /id}20298992ItalyNR | Prospective observational study | NO | NR | Patients undergoing elective PCI | NR | NR | followup after intervention | YES; Accrual >80% | NR |
| Mangiacapra, 2010{Mangiacapra, 2010 94 /id}20129566BelgiumNR | Prospective observational study | NO | NR | Patients undergoing angiography for stable angina or have stenotic coronary artery | NR | NR | Followup after intervention | YESAccrual > 80% | NR |
| Mangiacapra, 2010{Mangiacapra, 2010 65 /id}20723634ItalyNR | Prospective observational study | NO | NR | Patients undergoing elective PCI for stable angina or non–ST-elevation acute coronary syndromes | NR | NR | followup after intervention | YES; Accrual >80% | NR |
| Marcucci, 2009{Marcucci, 2009 144 /id}19118249ItalyNR | Prospective cohort | NO | NR | Patients with ACS who underwent PCI | January 2005 to March 2006 | 12 months | Followup after intervention | NO | Non-industry (grant to the FiorGen Foundation by Ente Cassa di Risparmio Florence, Italy) |
| Patti, 2008{Patti, 2011 22 /id}18804738ItalyARMYDA-PRO (Antiplatelettherapy for Reduction of MYocardial Damage duringAngioplasty-Platelet Reactivity Predicts Outcome) | Prospective observational study | NO | NR (appears to be a consecutive study) | Patients undergoing PCI for ACS, including those who have had a myocardial infarction  | NR | 6 month followup for each patient | Followup after intervention | YES; accrual >80% | Not supported by external sources of funding |
| Patti, 2011{Patti, 2011 22 /id}21256470ItalyAntiplatelet Therapy for Reduction of Myocardial Damage During Angioplasty (ARMYDA)–Bleeding Study (ARMYDA-BLEEDS) | Prospective | NO | Consecutive | clopidogrel-treated patients who underwent PCI | April 1-Dec. 31, 2009 | Total 1 month  | Inpatient for PCI, then followup for 1 mo as outpatient | NO | NR |
| Price, 2011{Price, 2011 23 /id}21406646USAGauging Responsiveness with A VerifyNow assay—Impact on Thrombosis And Safety (GRAVITAS) | Prospective cohort with comparison being made between one of the randomized arm of an RCT and a parallel observation cohort | YES | Consecutive | PCI for ACS and MI | July 2008 – Apr 2010 | 6 months | Followup after intervention | Yes; Accrual>80%  | Industry (Accumetrics & study drug was provided by an investigator-initiated grant from Bristol-Myers Squibb/ sanofi-aventis) |
| Price, 2008{Price, 2008 174 /id}18263931USANR | prospective Cohort  | No  | Patients with one lesion ≥50% diameter stenosis requiring PCI.  | Patients with one lesion ≥50% diameter stenosis requiring PCI. | July 2005- Aug 2006  | 6 months | Hospital inpatient | YES  | Industry |
| Saw, 2008{Saw, 2008 242 /id}19463380CanadaBRIEF-PCI | Sub-study of RCT | No  | Sub-study of RCT | Patients underwent PCI | March 2005-May 2007 | 24 hours | Vancouver General Hospital  | Yes. A sample size of204 was determined to be required—assuming clopidogrellow-responder prevalence of 25% and myonecrosis prevalenceof 40% after PCI in responders—to detect an absolutedifference of 20% from low-responders, with 5% alpha and80% power. | Non-industry only |
| Valgimigli, 2009{Valgimigli, 2009 244 /id}1952833710 sites in Europe (Italy, Belgium, France, Spain)Tailoring Treatment With Tirofiban in Patients Showing Resistance to Aspirin and/or Resistance to Clopidogrel (3T/2R) study | Prospective | YES | Consecutive | Adults with stable or troponin-negative non-STEMI ACS undergoing (elective?) coronary angiography or PCI | Feb. 2006-June 2008 | Total 30 days | Inpatient and then followup after discharge for 30 days | YES (YES—90%) | Partly industry |
| Vavuranakis, 2011{Vavuranakis, 2011 245 /id}21712606GreeceNR | Prospective observational study | NO | NR | Patients undergoing PCI for ACS (NSTEMI) | NR | Mean ± sd: 203±152 days | followup after intervention | YES[accrual > 80%; Min required: 64; recruited 74] | Reported as None |
| Breet, 2011{Breet, 2011 15 /id}21478385The NetherlandsPOPular | Observational study  | NR | Consecutive  | Patients scheduled for PCI with stent implantation  | NR | 1 year | Hospital  | NR | NR |
| Suh, 2011{Suh, 2011 33 /id}21232664KoreaCILON-T | prospective RCT | yes  | patients had angina pectoris or native coronary artery lesions | patients had angina pectoris or native coronary artery lesions  | Sep 2006 and June 2009 | 6 months | 5 hospitals  | yes. 80% | Non-industry |
| Price, 2011{Price, 2011 18182 /id}21875913USAGauging Responsiveness with A VerifyNow assay—Impact on Thrombosis And Safety (GRAVITAS) | Prospective cohort | YES | Consecutive | PCI for ACS and MI | July 2008 – Apr 2010 | 6 months | Followup after intervention | Yes; Accrual>80%  | Industry (Accumetrics & study drug was provided by an investigator-initiated grant from Bristol-Myers Squibb/ sanofi-aventis) |
| Park, 2011 {Park, 2011 1 /id} 22152948KoreaNR | prospective | no | consecutive | ACS patients with PCI and stent | March 2006-Dec 2009 | 2.2 years | follow up after intervention | yes, 90% | NR |
| Park, 2011{Park, 2011 18181 /id}21880289KoreaCROSS-VERIFY | prospective | no | NR | CAD patients with PCI and stent | June 2006-July 2008 | 12 months | follow up after intervention | Yes, 100% | Government & nongovernment (Clinical Research Center for Ischemic Heart Disease, Korean Society of Interventional Cardiology; Ministry of Health, Welfare & Family |
| Mangiacapra, 2012{Mangiacapra, 2012 18179 /id}22440493Italy & BelgiumARMYDA-PROVE | Prospective | Yes | yes | CAD patients with PCI and stent | April 2010-February 2011 | 30 days | follow up after intervention | Yes, 100% | NR |
| Yu, 2012 {Yu, 2012 18231 /id}KoreaNR | prospective cohort | no | Consecutive | CAD patients undergone PCI with drug-eluting stent | Nov 2007- Oct 2009 | 12 months | followup after intervention  | yes, 80% | non-industry |
| Jin, 2012 {Jin, 2012 18230 /id} KoreaNR | prospective cohort | yes  | NR | patients underwent PCI with DES and who were compliant with dual antiplatelet therapy  | July 2007-Oct 2009 | 12 months | inpatient and then follow-up | yes (80%) | NR |
| Saraf, 2010{Saraf, 2010 18234 /id}20447533UKNR | Prospective Cohort | NR | NR | Patients hospitalized for ACS undergoing PCI, CABG or medical treatment | NR | 1 year | Followup after intervention | No | NR |
| Ari, 2011{Ari, 2012 18246 /id}21239075TurkeyEFFICIENT | prospective RCT | yes  | NR | PCI patients  | Sep 2008-July 2009 | 6 months | inpatients then followup | yes (80%) | NR |
| Gaglia, 2012{Gaglia, 2011 18244 /id}21919956USANR | prospective | no | NR | PCI-STENT for ACS and CAD | October 2009 to September 2010 | 3 days | inpatient | no | NR |
| Codner, 2012{Codner, 2012 18241 /id}22534051IsraelNR | prospective | no | NR | PCI for ACS | NR | 6 months | followup after intervention | No | NR |