**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}  20406238  UK  NR | 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}  18312754  USA  OPTIMUS | 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}  20179285  Netherlands  POPULAR | 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}  20449634  Korea  NR | prospective cohort | no | consecutively  enrolled | unselected patients treated  with coronary stenting for symptomatic coronary artery disease, including acute myocardial infarction (AMI) and chronic clopidogrel therapy | December 2007  to June 2009 | 6 months | Department of  Cardiology of the Gyeongsang National University hospital inpatient | NR | NR |
| Ko, 2011{Ko, 2011 26 /id}  21315223  Korea  NR | 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}  20951320  10 sites in Italy, Belgium, France, Sprain  3T/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}  21679849  Italy  NR | 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}  18549843  Belgium  NR | 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}  19232185  Spain  NR | 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}  19463375  New Zealand  Secondary (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 platelet  function analyzer was provided by Sanofi Aventis, New Zealand. |
| Huczek, 2011{Huczek, 2011 239 /id}  21443410  Poland  NR | 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}  21786434  South Korea  CiLostazol 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}  20049136  South Korea  NR | 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}  20298992  Italy  NR | Prospective observational study | NO | NR | Patients undergoing elective PCI | NR | NR | followup after intervention | YES; Accrual >80% | NR |
| Mangiacapra, 2010{Mangiacapra, 2010 94 /id}  20129566  Belgium  NR | Prospective observational study | NO | NR | Patients undergoing angiography for stable angina or have stenotic coronary artery | NR | NR | Followup after intervention | YES  Accrual > 80% | NR |
| Mangiacapra, 2010{Mangiacapra, 2010 65 /id}  20723634  Italy  NR | 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}  19118249  Italy  NR | 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}  18804738  Italy  ARMYDA-PRO (Antiplatelet  therapy for Reduction of MYocardial Damage during  Angioplasty-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}  21256470  Italy  Antiplatelet 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}  21406646  USA  Gauging 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}  18263931  USA  NR | 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}  19463380  Canada  BRIEF-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 of  204 was determined to be required—assuming clopidogrel  low-responder prevalence of 25% and myonecrosis prevalence  of 40% after PCI in responders—to detect an absolute  difference of 20% from low-responders, with 5% alpha and  80% power. | Non-industry only |
| Valgimigli, 2009{Valgimigli, 2009 244 /id}  19528337  10 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}  21712606  Greece  NR | 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}  21478385  The Netherlands  POPular | Observational study | NR | Consecutive | Patients scheduled for PCI with stent implantation | NR | 1 year | Hospital | NR | NR |
| Suh, 2011{Suh, 2011 33 /id}  21232664  Korea  CILON-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}  21875913  USA  Gauging 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} 22152948  Korea  NR | 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}  21880289  Korea  CROSS-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}  22440493  Italy & Belgium  ARMYDA-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}  Korea  NR | 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} Korea  NR | 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}  20447533  UK  NR | 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}  21239075  Turkey  EFFICIENT | prospective RCT | yes | NR | PCI patients | Sep 2008-July 2009 | 6 months | inpatients then followup | yes (80%) | NR |
| Gaglia, 2012{Gaglia, 2011 18244 /id}  21919956  USA  NR | 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}  22534051  Israel  NR | prospective | no | NR | PCI for ACS | NR | 6 months | followup after intervention | No | NR |