**Appendix Table E43. Quality assessment of studies assessing the predictive ability of VerifyNow in patients with ischemic heart disease**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year [ref]****UID****Country****Study Name** | **Patients selection** |  |  |  |  | **Index test** |  |  |  | **Reference standard** |  |  |  | **Flow and timing** |  |  |  |  |
|  | **1** | **2** | **3** | **ROB****(selection)** | **Applicability****(selection)** | **4** | **5** | **ROB****(index)** | **Applicability****(index)** | **6** | **7** | **ROB****(reference)** | **Applicability****(reference)** | **8** | **9** | **10** | **11** | **ROB****(flow & timing)** |
| Cotton, 2010{Cotton, 2010 75 /id}20406238UKNR | no  | yes  | yes  | low  | low | NR | No | high  | low  | yes  | NR | yes  | low  | yes  | yes  | yes  | yes  | low  |
| Angiolillo, 2007{Angiolillo, 2008 180 /id}18312754USAOPTIMUS | NO | yes  | yes  | low  | low  | NR | NR | unclear  | unclear  | No | NR | unclear | high | no [1 month] | yes  | yes  | yes | low |
| Breet, 2010{Breet, 2010 86 /id}20179285NetherlandsPOPULAR | yes  | yes | yes | low | low | NR | no | high | low | yes | yes | low | low | yes  | yes | yes | yes | low |
| Kim, 2010{Kim, 2010 241 /id}20449634KoreaNR | yes  | yes | yes | low | low | NR | yes | unclear | Low | Yes | NR | unclean | Low | no [6 months] | yes  | yes  | yes | low |
| Ko, 2011{Ko, 2011 26 /id}21315223KoreaNR | YES | YES | YES | LOW | LOW | YES | NO | HIGH | LOW | YES | NR | UNCLEAR | LOW | NO [30 days] | YES | YES | YES | LOW |
| Campo, 2010{Campo, 2010 58 /id}2095132010 sites in Italy, Belgium, France, Sprain3T/2R trial | No | YES | YES | LOW | LOW | NR | yes | unclear | Low | YES | NR | UNCLEAR | LOW | yes [1 year]  | yes | yes | yes | low |
| Campo, 2011{Campo, 2011 13 /id}21679849ItalyNR | Yes | YES | YES | LOW | LOW | NR | yes | Low | Low | YES | NR | UNCLEAR | LOW | yes [12 months]  | yes | yes | yes | low |
| Cuisset, 2008{Cuisset, 2008 168 /id}18549843BelgiumNR | Yes | YES | YES | LOW | LOW | NR | No | High | Low | YES | Yes | Low | LOW | NO[followup NR] | yes | yes | yes | low |
| de\_Miguel\_Castro, 2009{de Miguel, 2009 136 /id}19232185SpainNR | No | YES | YES | LOW | LOW | Yes | No | High | Low | YES | Yes | Low | LOW | yes [1 year]  | yes | yes | yes | low |
| Gladding, 2008{Gladding, 2008 149 /id}19463375New ZealandSecondary (but not subgroup) analysis of PRINC (Plavix Response in Coronary Intervention) Trial | Yes | YES | YES | LOW | LOW | NR[double-blind trial but details related to genotyping unclear] | yes | Unclear | Low | No | NR[double-blind trial but details related to genotyping unclear] | High | Low | No [7 days]  | yes | yes | yes | low |
| Huczek, 2011{Huczek, 2011 239 /id}21443410PolandNR | NR | YES | No | Unclear | LOW | NR | No | High | Low | YES | NR | UNCLEAR | LOW | NO [30 days] | YES | YES | YES | LOW |
| Kim, 2011{Kim, 2011 5 /id}21786434South KoreaCiLostazol administration before pErcutaneous coronAry intervention for Reduction of periprocedural myonecrosis trial (CLEAR trial) | Ye (RCT)s | YES | YES | LOW | LOW | NR | yes | Unclear | Low | YES | NR | UNCLEAR | LOW | NO [6 months] | YES | YES | YES | LOW |
| Lee, 2009{Lee, 2009 230 /id}20049136South KoreaNR | Yes | YES | YES | LOW | LOW | NR | yes | Unclear | Low | YES | NR | UNCLEAR | LOW | NO [6 months] | YES | YES | YES | LOW |
| Mangiacapra, 2010{Mangiacapra, 2010 83 /id}20298992ItalyNR | No | YES | YES | LOW | LOW | NR | yes | Unclear | Low | YES | NR | UNCLEAR | LOW | NO[followup NR] | yes | yes | yes | low |
| Mangiacapra, 2010{Mangiacapra, 2010 94 /id}20129566BelgiumNR | No | YES | YES | LOW | LOW | NR | No | High | Low | YES | NR | UNCLEAR | LOW | NO[followup NR] | yes | yes | yes | low |
| Mangiacapra, 2010{Mangiacapra, 2010 65 /id}20723634ItalyNR | Yes | YES | YES | LOW | LOW | NR | yes | Unclear | Low | YES | NR | UNCLEAR | LOW | NO[followup NR] | yes | yes | yes | low |
| Marcucci, 2009{Marcucci, 2009 144 /id}19118249ItalyNR | No | YES | YES | LOW | LOW | Yes | No | Unclear | Low | YES | NR | UNCLEAR | LOW | yes [12 months]  | yes | yes | yes | low |
| Patti, 2008{Patti, 2011 22 /id}18804738ItalyARMYDA-PRO (Antiplatelettherapy for Reduction of MYocardial Damage duringAngioplasty-Platelet Reactivity Predicts Outcome) | NR | YES | YES | LOW | LOW | NR | No | High | Low | YES | NR | UNCLEAR | LOW | NO;1 MONTH & 6 MONTH | yes | yes | yes | low |
| Patti, 2011{Patti, 2011 22 /id}21256470ItalyAntiplatelet Therapy for Reduction of Myocardial Damage During Angioplasty (ARMYDA)–Bleeding Study (ARMYDA-BLEEDS) | Yes | YES | YES | LOW | LOW | NR | yes | Unclear | Low | YES | NR | UNCLEAR | LOW | NO (1 month) | yes | yes | yes | low |
| Price, 2011{Price, 2011 23 /id}21406646USAGauging Responsiveness with A VerifyNow assay—Impact on Thrombosis And Safety (GRAVITAS) | Yes | YES | YES | LOW | LOW | Yes | yes | Low | Low | Yes | yes | Low | Low | NO (6 months) | yes | yes | yes | low |
| Price, 2008{Price, 2008 174 /id}18263931USANR | No | YES | YES | LOW | LOW | NR | NR | Unclear | Low | YES | NR | UNCLEAR | LOW | NO (6 months) | yes | yes | yes | low |
| Saw, 2008{Saw, 2008 242 /id}19463380CanadaBRIEF-PCI | No | YES | YES | LOW | LOW | Yes | No | Unclear | Low | YES | NR | UNCLEAR | LOW | NO (6 months) | yes | yes | yes | low |
| 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 | No | YES | YES | LOW | LOW | NR | No | High | Low | YES | NR | UNCLEAR | LOW | NO (2-30 days) | yes | yes | yes | low |
| Vavuranakis, 2011{Vavuranakis, 2011 245 /id}21712606GreeceNR | No | YES | No | HIgh | LOW | NR | No | High | Low | Yes | yes | Low | Low | NO (Mean 203 days) | yes | yes | yes | low |
| Breet, 2011{Breet, 2011 15 /id}21478385The NetherlandsPOPular | Yes | yes  | yes  | low  | low  | NR | Yes | Unclear | Unclear | Yes | Yes | Low | low  | Yes [1 year] | yes  | yes  | yes  | low |
| Suh, 2011{Suh, 2011 33 /id}21232664KoreaCILON-T | NR | YES | YES | LOW | LOW | Yes | No | High | Low | Yes | NR | Unclear | low  | NO (6 months) | yes | yes | yes | low |
| Park, 2011 {Park, 2011 1 /id} 22152948KoreaNR | yes  | yes | yes | low | low | yes | yes | low | low | yes | yes | low | low | yes (median 2.2 years) | Yes | yes | yes | low |
| Price, 2011{Price, 2011 18182 /id}21875913USAGauging Responsiveness with A VerifyNow assay—Impact on Thrombosis And Safety (GRAVITAS) | Yes | YES | YES | LOW | LOW | Yes | yes | Low | Low | Yes | yes | Low | Low | NO (6 months) | yes | yes | yes | low |
| Park, 2011{Park, 2011 18181 /id}21880289KoreaCROSS-VERIFY | NR | yes | yes | low | low | yes | yes | Low | Low | Yes | yes | Low | Low | Yes (12 months) | yes | yes | yes | low |
| Mangiacapra, 2012{Mangiacapra, 2012 18179 /id}22440493Italy & BelgiumARMYDA-PROVE | Yes | yes | yes | low | low | yes | No | High | Low | Yes | yes | Low | Low | No (30 days) | yes | yes | yes | low |
| Yu, 2012 {Yu, 2012 18231 /id}KoreaNR | yes | yes | yes | low | low | NR | yes | unclear | low | yes | NR | unclear | yes | yes | yes | yes | yes | low |
| Jin, 2012 {Jin, 2012 18230 /id} KoreaNR | NR | yes | no | unclear | low | NR | no | High | low | yes | NR | unclear | low | yes | yes | yes | no | low |
| Saraf, 2010{Saraf, 2010 18234 /id}20447533UKNR | NR | Yes | Yes | Low | Low | Yes | Yes | Low | Low | Yes | NR | Unclear | Low | Yes [1 year] | Yes | Yes | Yes | Low |
| Codner, 2012{Codner, 2012 18241 /id}22534051IsraelNR | NR | Yes | yes | Low | Low | NR | Yes | unclear | Low | No | Yes | High | High | No [6 months] | Yes | yes | Yes | Low |
| Gaglia, 2012{Gaglia, 2011 18244 /id}21919956USANR | Yes | Yes | Yes | Low | Low | Yes | Yes | Low | low | Yes | Yes | Low | Low | No [in-hospital] | yes | yes | yes | Low |

1. Consecutive or random sample of patients enrolled.
2. Case-control design avoided
3. Study avoided inappropriate exclusions

Risk of bias: could the selection of patients have introduced bias ( If ≥2 of the above 3 questions are YES, give LOW here; if ≥2 are NO give HIGH; otherwise, give UNCLEAR)

Concerns that the included patients do not match the review question?

1. Index test results interpreted without knowledge of results of reference standard?
2. If a threshold used, was it prespecified?

Risk of bias: Could the conduct or interpretation of the index test have introduced bias?

(If both of the above questions are YES, give LOW here; if one or both are NO, give HIGH; otherwise, give UNCLEAR)

Concerns that the index test, its conduct, or its interpretation differ from the review question?

1. Reference standard likely to correctly classify the target condition?
2. Reference standard results interpreted without knowledge of index test results?

 Could the reference standard, its conduct, or its interpretation have introduced bias?

(If both of the above questions are YES, give LOW here; if one or both are NO, give HIGH; otherwise, give UNCLEAR)

Are there concerns that the target condition as defined by the reference standard does not match the review question?

1. Appropriate interval between index test and reference standard?
2. All patients received a reference standard?
3. All patients received the same reference standard?
4. Were all patients included in the analysis?

Could the patient flow have introduced bias? (If ≥3 of the above 4 questions are YES, give LOW here; if ≥2 are NO give HIGH; otherwise, give UNCLEAR)