**Appendix Table E24. Quality assessment of studies assessing the predictive ability of LTA in patients with ischemic heart disease**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year [ref]**  **UID**  **Country**  **Study Name** | **1** | **2** | **3** | **Patients selection**  **ROB**  **(selection)** | **Applicability**  **(selection)** | **4** | **5** | **Index test ROB**  **(index)** | **Applicability**  **(index)** | **6** | **7** | **Reference standard ROB**  **(reference)** | **Applicability**  **(reference)** | **8** | **9** | **10** | **11** | **Flow and timing ROB**  **(flow & timing)** |
| Geisler, 2010{Geisler, 2010 54 /id}  20526607  Germany  NR | yes | yes | yes | low | low | NR | yes | unclear | low | yes | NR | unclear | low | no | yes | yes | no | high |
| Cuisset, 2009{Cuisset, 2009 111 /id}  19801028  France  NR | yes | No | yes | low | low | NR | No | unclear | high | yes | NR | Low | low | no [30 days] | yes | yes | yes | low |
| Frere, 2007{Frere, 2007 193 /id}  17938809  France  NR | yes | No | yes | low | low | NR | No | High | Low | yes | NR | Unclear | low | no [30 days] | yes | yes | yes | low |
| Hoshino, 2009{Hoshino, 2009 143 /id}  19106460  Japan  NR | No | Yes | yes | low | low | NR | Yes | unclear | high | No | NR | high | high | NO [28 days] | yes | yes | yes | low |
| Breet, 2010{Breet, 2010 86 /id}  20179285  Netherlands  POPULAR | yes | yes | yes | low | low | NR | no | high | low | yes | yes | low | low | yes | yes | yes | yes | low |
| Gurbel, 2010{Gurbel, 2010 84 /id}  20194878  10 study sites in North America and Europe  RESPOND | yes | yes | yes | low | low | Yes | Yes | Low | High | No | Yes | high | high | NO  [30 days] | yes | yes | No | High |
| Kim, 2010{Kim, 2010 241 /id}  20449634  Korea  NR | yes | yes | yes | low | low | NR | yes | unclear | high | Yes | NR | unclear | Low | no [6 months] | yes | yes | yes | low |
| Angiolillo, 2007{Angiolillo, 2008 180 /id}  18312754  USA  OPTIMUS | NO | yes | yes | low | low | NR | NR | unclear | unclear | No | NR | unclear | high | no [1 month] | yes | yes | yes | low |
| Blindt, 2007{Blindt, 2007 189 /id}  18064332  Germany  NR | NO | NO | yes | HIGH | LOW | NR | No | unclear | high | yes | NR | Unclear | low | no [6 months] | yes | yes | yes | low |
| Bliden,  2007{Bliden, 2007 202 /id}  17291930  USA  NR | yes | yes | yes | low | low | NR | yes | unclear | high | yes | NR | unclean | low | yes | yes | yes | yes | low |
| Gori,  2008{Gori, 2008 151 /id}  19132241  Italy  RECLOSE | yes | yes | yes | low | low | NR | yes | unclear | low | yes | NR | unclear | low | no | yes | yes | yes | low |
| Gurbel,  2010{Gurbel, 2010 68 /id}  20691842  USA  PREPARE POST-STENTING | yes | yes | yes | low | low | NR | NO | high | high | yes | yes | low | low | yes | yes | yes | yes | low |
| Matetzky,  2004{Matetzky, 2004 188 /id}  15184279  Israel  No | yes | yes | yes | low | low | NR | no | high | low | no | yes | low | low | no | yes | yes | yes | low |
| Angiolollo, 2007{Angiolillo, 2007 194 /id}  17936152  Spain  NR | NO | yes | yes | low | low | NR | NR | unclear | low | Yes | NR | Unclear | low | Yes [2 years] | yes | yes | yes | low |
| Aradi, 2008{Aradi, 2008 236 /id}  18388039  Hungary  NR | NO | yes | yes | low | low | NR | No | High | High | Yes | NR | Unclear | low | No [~9 monthss] | yes | yes | yes | low |
| Bellemain-Appaix 2010{Bellemain-Appaix, 2010 87 /id}  20170822  France  ALBION (Assessment of the Best Loading Dose of Clopidogrel to Blunt Platelet Activation, Inflammation and Ongoing Necrosis) | Yes [RCT substudy] | yes | yes | low | low | NR | No | High | High | No | NR | High | High | No [24 hrs | yes | yes | yes | low |
| Breet, 2011{Breet, 2011 15 /id}  21478385  The Netherlands  POPular | Yes | yes | yes | low | low | NR | Yes | Unclear | Unclear | Yes | Yes | Low | low | Yes [1 year] | yes | yes | yes | low |
| Breet, 2010{Breet, 2010 50 /id}  20695984  Netherlands  Substudy of a larger cohort (Breet 2010 PMID: 20179285) | Yes | yes | yes | low | low | NR | No | Unclear | Low | Yes | Yes | Low | low | Yes [1 year] | yes | yes | yes | low |
| Buonamici, 2007{Buonamici, 2007 200 /id}  17572245  Italy  NR | Yes | yes | yes | low | low | NR | No | Unclear | High | Yes | Yes | Low | low | No [6 months] | yes | yes | yes | low |
| Campo, 2007{Campo, 2007 197 /id}  17868803  Italy  NR | No | yes | yes | low | low | NR | No | Unclear | Unclear | Yes | NR | Unclear | low | No [6 months] | yes | yes | yes | low |
| Cuisset, 2009  19736156  France  NR | Yes | yes | yes | low | low | Yes | No | High | High | Yes | NR | Unclear | low | No [30 days] | yes | yes | yes | low |
| Cuisset, 2006{Cuisset, 2006 212 /id}  16371119  France  NR | Yes | yes | yes | low | low | NR | No | High | Low | Yes | Yes | Low | low | No [1 month] | yes | yes | yes | low |
| Cuisset, 2006{Cuisset, 2006 237 /id}  17010792  France  NR | Yes | yes | yes | low | low | NR | No | High | Low | Yes | Yes | Low | low | No [1 month] | yes | yes | yes | low |
| Cuisset, 2007{Cuisset, 2007 204 /id}  17264958  France  NR | Yes | yes | No | low | low | NR | Yes | Unclear | High | Yes | NR | Unclear | low | No [12 hrs] | yes | yes | No [20 patients who did not receive successful angioplasty were excluded from the study] | low |
| Geisler, 2008{Geisler, 2008 184 /id}  17949474  Germany  NR | Yes | yes | yes | low | low | NR | No | High | High | Yes | Yes | Low | low | NO (30 days) | yes | yes | NO (~13% of patients were lost to followup) | High |
| Geisler, 2006{Geisler, 2006 210 /id}  17005534  Germany  NR | Yes | yes | yes | low | low | NR | Yes | Unclear | High | Yes | Yes | Low | low | No [3 months] | yes | yes | yes | low |
| Geisler, 2010{Geisler, 2010 101 /id}  19812059  Germany  NR | Yes | yes | yes | low | low | Yes | No | High | High | Yes | Yes | Low | low | No [3 months] | yes | yes | yes | low |
| Giusti, 2009{Giusti, 2009 134 /id}  19268736  Italy  RECLOSE study  (Low Responsiveness to Clopidogrel and Sirolimus- or Paclitaxel-Eluting Stent Thrombosis) | Yes | yes | yes | low | low | NR | No | High | High | Yes | YES  (states that event adjudication was blind to laboratory results) | Low | low | No [6 months] | yes | yes | yes | low |
| Gori, 2008 {Gori, 2008 164 /id}  18718420  Italy  RECLOSE study  (Low Responsiveness to Clopidogrel and Sirolimus- or Paclitaxel-Eluting Stent Thrombosis) | Yes | yes | yes | low | low | Yes | Yes | Low | High | Yes | Yes | Low | low | No [6 months] | yes | yes | yes | low |
| Gurbel, 2008{Gurbel, 2008 157 /id}  19012177  USA  None | Yes | yes | yes | low | low | NR | Yes | Unclear | Low | Yes | Yes | Low | low | Yes [2 years] | yes | yes | yes | low |
| Gurbel, 2004{Gurbel, 2004 220 /id}  15154601  USA  None | NR | yes | yes | low | low | NR | No | High | Low | Yes | NR | Unclear | low | NO (30 days) | yes | yes | yes | High |
| Hochholzer, 2006{Hochholzer, 2006 208 /id}  17084243  Germany  EXCELSIOR | No | yes | yes | low | low | NR | NR | Unclear | High | Yes | NR | Unclear | low | NO (30 days) | yes | yes | yes | Low |
| Htun, 2011{Htun, 2011 20 /id}  21273381  Germany  NR | Yes | yes | No [232 of 1567 patients excluded in final analysis] | low | low | NR | Yes | Unclear | High | Yes | NR | Unclear | low | Yes [1 year] | yes | yes | No [15% excluded in final analysis] | low |
| L’Allier, 2008{L'Allier, 2008 178 /id}  18342223  Canada  PREPAIR study | Yes | yes | yes | low | low | Yes | Yes | Low | High | Yes | NR | Unclear | low | NO (1 month) | yes | yes | yes | Low |
| Liu, 2011{Liu, 2011 12 /id}  21613806  China  None | Yes | yes | yes | low | low | NR | Yes | Unclear | Unclear | Yes | NR | Unclear | low | NO (3 months) | yes | yes | YES (~2% [2 patients] withdrew before 12 hr and three more [!3%] were lost to followup later) | Low |
| Muller, 2003{Muller, 2003 223 /id}  12719773  Germany  None | NR | yes | yes | low | low | NR | NR | Unclear | Low | Yes | NR | Unclear | low | NO [latest date mentioned is a 9-mo measurement, only in 1 pt] | yes | yes | yes | Low |
| Muller, 2010{Muller, 2010 51 /id}  20728084  Germany  NR | Yes | yes | yes | low | low | Yes | No | Unclear | High | Yes | Yes | Low | low | No  [mean 344 days] | yes | yes | yes | Low |
| Obradovic, 2009{Obradovic, 2009 123 /id}  19318922  Serbia  NR | No | yes | yes | low | low | NR | No | High | High | No | NR | High | High | No  [24 hours] | yes | yes | yes | Low |
| Saw, 2008{Saw, 2008 243 /id}  19038679  Canada  ELAPSE trial | NR | yes | yes | low | low | NR | Yes | Unclear | Low | Yes | NR | Unclear | low | Yes [12 months] | yes | yes | NO (22% withdrew [7 of 33 enrolled]) | Low |
| Trenk, 2008{Trenk, 2008 171 /id}  18482659  Germany  EXCELSIOR (Impact of Extent of Clopidogrel- Induced Platelet Inhibition During Elective Stent Implantation  on Clinical Event Rate) | NO  (included all patients in the prospective EXCELSIOR cohort that had genotypic information) | yes | No | high | low | Yes | Yes | Low | Low | No | No | High | Low | Yes [1 year] | yes | yes | yes | Low |
| Wang, 2010{Wang, 2010 37 /id}  21171668  China  None | No | yes | yes | low | low | NR | Yes | Unclear | Low | Yes | Yes | Low | low | Yes [1 year] | yes | yes | yes | Low |
| Wang, 2009{Wang, 2009 130 /id}  19041120  China  NR | No | yes | yes | low | low | NR | Yes | Unclear | High | Yes | NR | Unclear | low | Yes [12 months] | yes | yes | yes | Low |
| Yong, 2009{Yong, 2009 146 /id}  19081397  Australia  Platelet Responsiveness to Aspirin and Clopidogrel and  Troponin Increment after Coronary intervention in Acute  coronary Lesions (PRACTICAL) Trial | Yes | yes | yes | low | low | Yes | NR | Unclear | High | Yes | Yes | Low | low | No [6 months] | yes | yes | yes | low |
| Gurbel,  2003{Gurbel, 2003 224 /id}  12714161  USA  No | NR | yes | yes | low | low | NR | no | high | unclear | No | NR | high | yes | No (30 days) | yes | yes | No (many had no data at 30 days) | high |
| Gurbel 2005{Gurbel, 2005 215 /id}  16286165  USA  PREPARE POST-STENTING | Yes | No | No | High | Low | NR | NR | Unclear | High | Yes | Yes | Low | Low | No [6 months] | yes | yes | yes | low |
| Gurbel 2003{Gurbel, 2003 222 /id}  12796140  USA  NR | Yes | YES | Yes | Low | Low | Yes | Yes | Low | Low | Yes | NR | Unclear | Low | No [30 days] | Yes | Yes | Yes | Low |
| Kalantzi, 2012{Kalantzi, 2012 18174 /id} 21806493  Greece  NR | NR | yes | yes | low | low | NR | yes | unclear | low | no | NR | unclear | high | no | yes | yes | yes | low |
| Angiolillo, 2011 {Angiolillo, 2011 18175 /id}  Italy  NR | NR | yes | yes | low | low | NR | yes | unclear | low | yes | NR | unclear | low | yes | yes | yes | yes | low |
| Parodi, 2011{Parodi, 2011 2 /id} 21934054  Italy  NR | yes | yes | yes | low | low | NR | yes | unclear | high | yes | yes | low | low | yes | yes | yes | yes | low |
| Gurbel, 2012{Gurbel, 2012 18183 /id} 21862113  USA  NR | NR | yes | yes | low | low | NR | No | High | High | No | NR | High | High | No [1 day] | yes | yes | yes | low |
| Saad, 2012{Saad, 2012 18187 /id}  22146578  Egypt  NR | NR | yes | yes | low | low | NR | No | High | High | yes | yes | low | low | No [6 months] | yes | yes | yes | low |
| Tselepis, 2011 {Tselepis, 2011 1 /id}  22008470  Greece  NR | yes | yes | yes | low | low | NR | yes | unclear | high | no | NR | high | high | no | yes | yes | yes | low |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gaglia, 2012{Gaglia, 2011 18244 /id}  21919956  USA  NR | Yes | Yes | Yes | Low | Low | Yes | Yes | Low | high | Yes | Yes | Low | Low | No [in-hospital] | yes | yes | yes | Low |
| Aradi {Aradi, 2012 18248 /id}  21902692  Hungary  NR | no | yes | yes | low | low | NR | yes | unclear | high | yes | NR | unclean | low | yes | yes | yes | yes | low |
| Marcucci, 2012{Marcucci, 2012 18217 /id}  22390861  Italy  NR | NR | YES | YES | LOW | LOW | NR | Yes | UNCLEAR | High | NR | NR | UNCLEAR | LOW | YES | YES | YES | YES | LOW |
| Ge, 2012{Ge, 2012 18184 /id}  21602258  China  NR | NR | YES | YES | LOW | LOW | NR | YES | UNCLEAR | LOW | YES | NR | UNCLEAR | LOW | NO | 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)