**Supplementary Table 1:** Study quality assessment

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| --- | --- | --- | --- | --- | --- |
| Study ID | Prospective data collection | Sample size >100 in each arm | Reliable ascertainment of outcomes | Low loss to follow up | No baseline differences (RCT) or adjustments for confounders (cohort) |
| Benedetto 2014 | Retrospective | Yes | Yes, Database to assess complications andmortality from General Register Office. | Unclear. | Effect of confounders minimized with propensity score matching. |
| Blazek 2015 | RCT | No, 65 in each arm | Yes, Structured patient interview and contact with GP, referring cardiologist or hospital. | Yes, <1%. | No different between groups apart from clopidogrel use. |
| Buszman 2011 | Retrospective | Yes | Unclear. | Unclear. | Propensity score was used as adjustment factor. |
| Glineur 2009 | Retrospective | Yes. | Unclear. | Unclear. | Adjusted for diabetes, hypertension, tobacco use, history of MI or peripheral vascular disease. |
| Hannan 2014 | Unclear | Yes, 715 in each arm | Unclear. | Unclear. | Propensity-matched pairs with Cox proportional hazards. |
| Hong 2005 | RCT | No, 70 in surgical arm | Yes, Clinical workup with exercise stress test at 1- and 6-month post-procedure. | Yes, <2%. | Baseline characteristics between the 2 groups were comparable. |
| Jones 2011 | Unclear | Yes | Unclear. | Unclear. | Crude results. |
| Patsa 2010 | Unclear | Yes | Unclear. | Unclear. | Crude results. |
| Thiele 2009 | RCT | No, 65 in each arm | Yes, Telephone follow-up, 12-month exercise stress test and coronary angiography. | Yes, none. | No different between groups apart from clopidogrel use. |
| Toutouzas 2007 | Retrospective | Yes | Yes, follow-up by interview/telephone and hospital records. | Unclear. | Crude results. No differences between the two groups, apart from clopidogrel use. |
| Ungureanu 2013 | Retrospective | No, 50 in PCI-DES | Unclear. | Unclear. | Crude results. |

**Supplementary Table 2:** Sensitivity analysis risk of mortality and major adverse cardiovascular outcomes with DES or CABG

|  |  |  |
| --- | --- | --- |
| **Outcome or Subgroup** | **Studies** | **RR [95% CI]** |
| Mortality by study design | 9 | 1.23 [0.89, 1.70] |
| RCT | 2 | 0.53 [0.09, 3.07] |
| Adjusted or propensity matched | 3 | 1.33 [0.70, 2.51] |
| Unadjusted | 4 | 1.61 [1.00, 2.58] |
| Mortality by year >2006 and <2006 | 9 | 1.23 [0.89, 1.70] |
| Mean year >2006 | 5 | 1.31 [0.89, 1.70] |
| Mean year <2006 or unclear | 4 | 0.97 [0.44, 2.11] |
| Mortality among MIDCAB only | 5 | 1.27 [0.76, 2.14] |
| MACE by study design | 8 | 1.42 [1.03, 1.95] |
| RCT | 2 | 1.37 [0.81, 2.30] |
| Adjusted or propensity matched | 4 | 1.62 [1.01, 2.60] |
| Unadjusted | 2 | 0.96 [0.60, 1.56] |
| MACE by year >2006 and <2006 | 8 | 1.42 [1.03, 1.95] |
| Mean year >2006 | 5 | 1.29 [0.95, 1.77] |
| Mean year <2006 or unclear | 3 | 1.75 [0.75, 4.07] |
| MACE among MIDCAB only | 5 | 1.77 [1.26, 2.49] |

RCT=randomized controlled trials, TVR=target vessel revascularization

**Supplementary Figure 1a:** Risk of mortality according to randomized trials, adjusted cohort studies and unadjusted cohort studies

Figure 6 mortality by design.tif

**Supplementary Figure 1b:** Risk of adverse cardiovascular outcomes according to randomized trials, adjusted cohort studies and unadjusted cohort studies

Figure 9 MACE by design.tif

**Supplementary Figure 2a:** Risk of mortality according to year of publication before or after 2006

**Figure 7 mortality by year.tif**

**Supplementary Figure 2b:** Risk of adverse cardiovascular outcomes according to year of publication before or after 2006

Figure 10 MACE by year.tif

**Supplementary Figure 3a:** Risk of mortality among MIDCAB procedure

Figure 8 mortality MIDCAB.tif

**Supplementary Figure 3b:** Risk of MACE among MIDCAB procedure

**Figure 11 MACE MIDCAB.tif**