CLINICAL OUTCOMES OF ZOTAROLIMUS-ELUTING STENTS VERSUS THE FIRST GENERATION SIROLIMUS-ELUTING STENTS AND PACLITAXEL-ELUTING STENTS: A META-ANALYSIS OF RANDOMISED TRIALS

Methods Six eligible randomised trials with nine publications were identified. The primary end point was major adverse cardiac events (MACE) and secondary end points were all-cause death, cardiac death and myocardial infarction (MI). Events occurred within 1 year were defined as late clinical outcomes and those after 1 year were defined as very late clinical outcomes.

Results Overall relative risk (RR) and 95% CI were calculated for ZES versus SES and PES for each of the end points. No heterogeneity across the trials was observed. The risk of MACE (late period RR 1.41; 95% CI 1.17 to 1.71; very late period RR 1.33; 95% CI 1.09 to 1.61) was increased by use of ZES compared with SES and no significant difference in the risk of all-cause death, cardiac death and MI was found. Pooled analysis also demonstrated statistically significant reduction of ZES compared with PES in MI (late period RR 0.71; 95% CI 0.54 to 0.94; very late period RR 0.48; 95% CI 0.32 to 0.73) and no significant difference in the risk of MACE, all-cause death and cardiac death.

Conclusions Available data suggested that he ZES was inferior to SES in terms of MACE and superior to PES in terms of MI. Future studies with more participants and longer follow-up are needed to better clarify the relative merits of these drug-eluting stents.