Coronary stent thrombosis remains an important problem after the implantation of different stent types. This study investigates the risk of stent thrombosis associated with the use of drug-eluting stents (DESs), bare-metal stents (BMSs) compared to balloon angioplasty. A meta-analysis of 28 randomized trials involving 5612 versus 7639 versus 2994 patients with coronary heart disease treated with DES, BMS, or balloon angioplasty was therefore performed. Comparing the implantation of DES versus BMS, DES was not found to increase the hazard for thrombosis up to 15 months (odds ratio [OR] = 0.86, 95% confidence interval [CI] 0.58 to 1.3, p< .48). There was also no significant difference in the hazard for subacute thrombosis (SAT) or late stent thrombosis (LST) in the DES versus BMS group (OR = 0.86, 95% CI 0.50 to 1.5, p< .6 and OR = 0.92, 95% CI 0.50 to 1.68, p< .78, respectively). Comparing incidences of stent thromboses in patients receiving balloon angioplasty or implantation of BMS, the rate of SAT in the balloon angioplasty group (1.7% SAT) versus BMS group (1.8% SAT) was also similar (OR = 0.93, 95% CI 0.61 to 1.4, p< .71). Finally, there was no significant difference in the occurrence of stent thrombosis for the different coatings of DESs. In conclusion, the use of DES was not observed to have a significant effect on stent thrombosis events, compared with the implantation of BMS or balloon angioplasty.