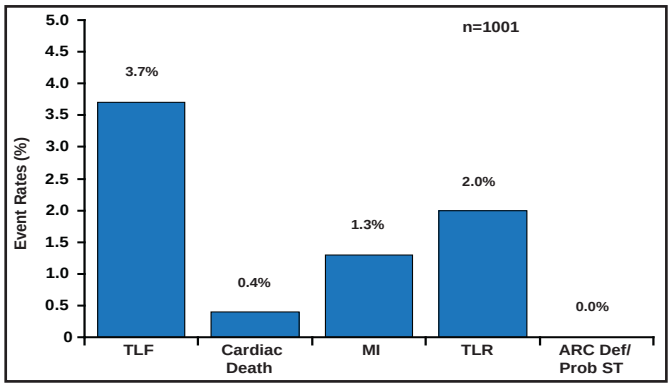
follow-up is required to demonstrate long-term efficacy and safety.

Figure 1. Main Analysis Cohort: 12-Month TLF, Cardiac Death, MI, and TLR.



Further reading: Yeung AC et al. *J Am Coll Cardiol* 2011; Mauri L et al. *Am Heart J* 2011.

The PLATINUM Trial: New Metal Alloy DES is Similar to a Predicate DES for Uncomplicated Elective PCI

A novel platinum-chromium everolimus-eluting stent (PtCr-EES) proved to be as safe and effective as the cobalt-chromium everolimus-eluting stent (CoCr-EES) in the 12-month Prospective, Randomized, Multicenter Trial to Assess an Everolimus-Eluting Coronary Stent System [PROMUS Element] for the Treatment of up to Two De Novo Coronary Artery Lesions Trial (PLATINUM; NCT00823212), the first large-scale, international, multicenter, prospective, single-blind, randomized trial of the novel stent [Stone GW et al. *J Am Coll Cardiol* 2011]. The PROMUS Element drug-eluting stent (DES) uses the same biocompatible, inert fluorocopolymer and antiproliferative agent as an earlier-generation CoCr-EES (PROMUS) but has a modified scaffold that is designed to improve delivery, vessel conformability, side branch access, radiopacity, radial strength, and fracture resistance.

In PLATINUM, 1530 patients who were undergoing percutaneous coronary intervention (PCI) of one or two *de novo* native lesions were randomized to receive CoCr-EES (n=762) or a PtCr-EES (n=768). The primary endpoint was the 12-month rate of target lesion failure (TLF), the composite of target vessel-related cardiac death, target vessel-related myocardial infarction (MI), or ischemia-driven target lesion revascularization (TLR) in patients who received at least one assigned study stent. The trial was powered to test for a noninferiority risk difference within 3.5%. Secondary endpoints included individual components of the primary endpoint, stent thrombosis, successful delivery and deployment of the stent without balloon rupture or stent embolization, and clinical procedural success, defined as a final lesion diameter <30% with TIMI 3 flow.

Among the 1530 patients who were enrolled and randomized, the mean age was 63 years, 28% was female, 23% had diabetes, and 24% had unstable angina. A total of 27 of the 762 patients (3.5%) who received CoCr-EES and 23 of the 768 patients (3.0%) who received PtCr-EES were lost to follow-up or withdrew consent. At 12 months, the primary outcome of TLF had occurred in 2.9% (21 out of 714) of the CoCr-EES versus 3.4% (25/731 patients) of the PtCr-EES group (risk difference +0.5%; 95% CI, -1.3 to 2.3%; p for noninferiority=0.001). Results were similar in the intention-to-treat analysis: 3.2% (23/737) of the CoCr-EES versus 3.5% (26/742) of the PtCr-EES group (risk difference +0.3%; 95% CI, -1.5% to 2.2%; p for noninferiority=0.0009). TLR and stent thrombosis rates were very rare and occurred equally with both stents (1.9% and 0.4%, respectively).

Findings from PLATINUM indicate that along with stainless steel and cobalt chromium, platinum chromium may now be considered an acceptable metal alloy for use in DES. Of note, however, the event rates were less than expected (and similar to the number that was lost to follow-up); thus, while statistical noninferiority was demonstrated, small differences between the stents can not be excluded. Longer-term follow-up and additional multicenter studies are indicated in patients with acute coronary syndromes and/or complex coronary anatomy to further assess stent deliverability and clinical outcomes in these important patient populations.

The RAPS Trial: Radial Artery Grafts are Associated with Greater Longer-Term Patency than SVGs

Aorta-to-coronary saphenous vein grafts (SVGs) are the most widely used technique in patients who undergo coronary artery bypass graft (CABG) surgery, but data from the Randomized Multicenter Radial Artery Patency Study (RAPS; NCT00187356) demonstrate that radial artery grafts have better long-term angiographic patency. Stephen Fremes, MD, MSc, University of Toronto and Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada, presented findings from the 5-year analysis of RAPS, a