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# Long-term clinical outcomes after drug eluting stent implantation in women with de novo coronary lesions Results from the REAL (REgistro Regionale AngiopLastiche Emilia-Romagna) multicenter registry.

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## Abstract

**BACKGROUND:** The long-term effectiveness of drug eluting stents (DESs) in a real-world setting of female patients is currently unclear.

**METHODS AND RESULTS:** We analyzed long-term follow-up (up to 3 years) data from all female patients with de novo lesions enrolled in a prospective web-based multicenter registry (REAL Registry; study period, July 2002-June 2006) including all 15 hospitals performing PCI in the Emilia-Romagna region of Italy. Among the 3549 women without ST elevation myocardial infarction, 2434 were treated with BMSs alone and 1115 with DESs alone. At 3 years, use of DESs was associated with a lower propensity score adjusted incidence of MACE [cardiac mortality, non-fatal myocardial infarction and target vessel revascularization (TVR); 19.5% vs. 24.4%; HR 0.75, p=0.006)] and TVR (11.6% vs. 15.6%; HR 0.68, p=0.004) compared with BMSs. No difference was apparent in terms of adjusted 3-year cardiac mortality or myocardial infarction. Nevertheless, after the first 6months of follow-up, a non significantly increased risk of myocardial infarction and stent thrombosis was found in the DES group.

**CONCLUSIONS:** In this real-world female registry, the use of DESs was associated with a 3-year reduction of TVR and MACE in comparison with the use of BMSs. However, the observed (non-significant) increment of late AMI makes performing larger studies to clarify the long-term safety of DESs mandatory.