

## TCT@ACC-i2: Invasive and Interventional Cardiology

### PREDICTING TARGET-VESSEL REVASCULARIZATION AMONG OLDER PATIENTS UNDERGOING PCI IN THE DRUG-ELUTING STENT ERA

Poster Contributions

Poster Sessions, Expo North

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**Background:** Repeat revascularization remains a persistent problem after percutaneous coronary intervention (PCI) and has not been well studied among older patients undergoing PCI.

**Methods:** We analyzed patients  $\geq 65$  years old undergoing native vessel PCI from 2005 to 2009 discharged alive using linked CathPCI Registry<sup>®</sup> and Medicare data. We included patients receiving bare-metal or drug-eluting stents (DES), but not both. Repeat PCIs within 1 year of index procedure were identified by claims and linked to CathPCI to verify target vessel revascularization (TVR) status. We used multivariable logistic regression to determine independent predictors of TVR. Model development and validation was performed in 2/3 and 1/3 of the population, respectively.

**Results:** Among 413,952 PCIs, DES was used in 75.2% (n=311,251) of cases. The overall rate of 1-year TVR was 3.3% (n=13,665). Patients with TVR had more comorbidities and more often underwent multivessel and bifurcation lesion PCI than those without TVR. We developed a TVR prediction model using demographic and clinical variables (c-index 0.573). Model performance improved slightly after inclusion of angiographic (c-index 0.617) and PCI characteristics (c-index 0.633). The angiographic only model for TVR was well calibrated (Figure).

**Conclusions:** Native vessel TVR among older patients appears uncommon in contemporary practice. Despite development of a well-calibrated model, TVR prediction using clinical and angiographic variables remains difficult.

