# GRACE: Drug-eluting stents should be used with caution in patients with STEMI

## Registry data may not be definitive but offers data other studies have not yet yielded.

**by Judith Rusk**
CARDIOLOGY TODAY MANAGING EDITOR

VIENNA, Austria – Patients with an ST-elevated myocardial infarction who received a drug-eluting stent were at increased risk for death, results of a registry trial show.

Survival at six months following hospital discharge did not differ between patients treated with bare metal stents and patients receiving at least one drug-eluting stent (2.7 vs. 2.5; *P*=.9708), but between six months and two years, the difference was great, (1.6 vs. 8.6; *P*=.0170) and there were numerically more patients receiving drug-eluting stents having reinfarction.

"With all the caveats of observational datasets, this suggests that drug-eluting stents should be used cautiously in patients with STEMI at least until further evidence of long-term (two years or more) safety is accumulated in either large cohorts or large trials," said **Philippe Gabriel Steg, MD,** professor of cardiology at Hopital Bichat-Claude Bernard, Paris.

Steg presented results of the Global Registry of Acute Coronary Events (GRACE) trial at the European Society of Cardiology Congress 2007.

### Mortality in STEMI

Steg said little data exist about outcomes among patients with STEMI past one year. Trials that do explore this are few: TYPHOON, PASSION, SESAMI and STRATEGY. Although Steg focused on a subset of patients with STEMI (n=2,298), the overall registry includes 6,600 patients with acute coronary syndromes hospitalized in 94 hospitals in 14 countries. The mean age of patients was 60. Data were collected at admission and follow-up at six months and two years. The substudy focused on the 569 patients with a drug-eluting stent and 1,729 who received a bare metal stent.

Steg said researchers adjusted the results using multiple logistic regression but the mortality numbers were still significant. Among the data adjustments: for GRACE risk score (OR=6.022, 95% CI, 1.946-18.633), for GRACE risk score and propensity (OR=5.805, 95% CI, .871-18.013) and for GRACE risk score, propensity, dilated vessels, diabetes, etc. (*P*=.002).

### GRACE limited

Steg said the study has several limitations, the most important that the study is a nonrandomized and observational dataset. Other limitations include a lack of specific stent information – models and manufacturers – or information about angiographic lesion characteristics that could affect outcomes.

"This is still a relatively small cohort," Steg said. "Follow-up and patient numbers are accumulating.

"Personally I never implant drug-eluting stents in patients with STEMI undergoing primary PCI nowadays," Steg said. "I think there are candidates for drug-eluting stents, but not patients with STEMI undergoing primary PCI."

Discussant **William Wijns, MD,** of the Cardiovascular Center, OLV Hospital, Aalst, Belgium, said, "It will take no less than large, properly designed, randomized trials to sort out these issues."

Percutaneous coronary intervention is a Class IA indication for NSTEMI and STEMI, Wijns said. "Let's not step over the threshold of these established life-saving indications of PCI." **CT**

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Editor's Note: Personally, I never use drug-eluting stents for patients with STEMI. The reason is that the patients with STEMI do not have a lot of restenosis. This is a registry. I do not know if these patients that got drug-eluting stents got them for some reason that is not adjusted for in this data that puts them at higher risk for mortality. Most mortality charts are linear. This one levels off. Is that a fluke? I do not know. This is interesting, but I do not think [GRACE] is definitive.
— Spencer King III, MD, Section Editor, Interventional Cardiology, CARDIOLOGY TODAY Editorial Board.

### For more information:

Steg PG. Increased all-cause mortality at two year follow-up after PCI with drug-eluting stents vs. bare metal stents in acute coronary syndromes: the GRACE registry. Hotline III #3218.

Wijns W. Discussant. Hotline III #3219.

Both presented at: the European Society of Cardiology Congress 2007; Sept. 1-5, 2007; Vienna, Austria.

# New protocols may improve door-to-balloon time

**by Eric Raible**
CARDIOLOGY TODAY STAFF WRITER

Reducing the number of steps in emergency department protocols significantly increases the survival rate for patients with ST-elevation myocardial infarction.

Combining certain links in the chain of events initiated during

Khot, MD, a cardiologist at Saint Francis Heart Center, Indianapolis, told CARDIOLOGY TODAY. "We don't think it's a matter of people not going fast enough. It's that the current process in which those patients are taken care of is not very efficient."

The results were published in *Circulation.*

so that instead of running one step after the other, all steps run simultaneously. You get to the same place in the end, but you get there a lot faster."

The researchers implemented the new protocols between October 2004 and June 2006 in a 591-bed, tertiary care community hospital.

The study population included pa-

concluded that ED physician activation of the cath lab and immediate patient transfer to the first available cath lab by an in-house transfer team were the two factors that decreased door-to-balloon time. **CT**

Editor's note: It is important that the door-to-balloon time be kept at a minimum. The fig-