TAVI restricted to very old or very sick patients

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The registry is part of the European Society of Cardiology (ESC) EURObservational Research Programme (EORP) of surveys and registries.

Today's presentation reveals current usage of the most modern TAVI valves and catheters in Europe, and compares indications, techniques and outcomes between different countries. "TAVI is a new technology which has been introduced in Europe but many question marks remain on which patients are most suitable," said Professor Di Mario. "We set up this registry because it was important to have a clear picture of clinical practice in Europe. Since our study was conducted during 2011-2012 we only included the very latest valves and delivery systems and this, together with the increased operator experience, probably explains the reduction in complications from previous studies and registries."

The registry included 4,571 patients who underwent the TAVI procedure using the Sapien XT or the CoreValve between January 2011 and May 2012. Patients were from 137 centres in Israel and 9 countries in Europe (Czech Republic, France, Spain, Switzerland, UK, Italy, Poland, Belgium, Germany).

The average age of patients was 81.4±7.1 years, with equal numbers of men and women. There was a high prevalence of comorbidities in all patients, but patients who were 80 years old or younger had a greater incidence of diabetes, COPD, extracardiac arteriopathy (carotid, peripheral), permanent renal dialysis, previous myocardial infarction,

previous cardiac surgery or percutaneous coronary intervention (PCI), previous aortic valve replacement (valve-in-valve procedure). Professor Di Mario said: "This shows that the use of TAVI in younger patients has been restricted to those with more comorbidities, who therefore have high surgical risks."

Overall in-hospital mortality was 7.4%. There were no significant differences in in-hospital mortality based on valve type (6.7% CoreValve, 7.9% Sapien XT, p=0.15) but there were significant differences based on the approach site (transfemoral 5.9%, transapical 12.8%, trans-subclavian and other approaches 9.7%, p