(median 116 days vs 53 days), and ventricular rates were lower during first recurrences in the dronedarone group than in the placebo group (mean ± SD beats/min 103.4 ± 25.9 vs 117.1 ± 30.4; $P < 0.001$). Combined mortality and hospitalization rates at 12 months were also lower in the dronedarone group (22.8% vs 30.9%; hazard ratio 0.73, 95%CI 0.57–0.93; $P = 0.01$).

Dronedarone seems to be superior to placebo at maintaining sinus rhythm in AF. Furthermore, the drug seems to be relatively safe—elevated serum creatinine levels were more prevalent among those taking the drug, but adverse event rates were otherwise similar between the groups. Further trials are needed in order to directly compare dronedarone with amiodarone.

Original article Singh BN *et al.* (2007) Dronedarone for maintenance of sinus rhythm in atrial fibrillation or flutter. *N Engl J Med* **357:** 987–999

OP CABG surgery: good short-term outcomes, increased risk for subsequent revascularization

The proportion of CABG surgery that is performed off-pump has increased in recent years, yet there are no definitive data comparing the outcomes of this procedure with those of conventional on-pump surgery.

In this large observational study, Hannan *et al.* used New York State registry data to compare the short-term and long-term outcomes of 35,941 patients who underwent on-pump CABG surgery with those of 13,889 patients who underwent off-pump CABG surgery (OPCABG). After adjustment for risk factors, patients who underwent OPCABG had lower inpatient or 30-day mortality (odds ratio [OR] 0.81, 95% CI 0.68–0.93), lower rates of perioperative stroke (OR 0.70, 95% CI 0.57–0.86) and respiratory failure (OR 0.80, 95% CI 0.68–0.93), and a higher rate of unplanned operations during the index admission period (OR 1.47, 95% CI 1.01–2.15) compared with patients who underwent on-pump CABG surgery.

At 3 years, risk-adjusted mortality did not differ between the OPCABG and on-pump cohorts (hazard ratio [HR] 1.01, 95% CI 0.92–1.10). Compared with patients who received on-pump surgery, however, those who underwent OPCABG had a significantly higher rate of subsequent revascularization after risk adjustment (HR 1.50, 95% CI 1.32–1.70) and after pairwise matching for predictors of type of surgery (10.1% vs 6.4%; HR 1.55, 95% CI 1.33–1.80).

The authors recommend that randomized controlled trials be conducted to compare OPCABG with on-pump CABG surgery, in order to determine which patient groups benefit most from each procedure.

Original article Hannan EL *et al.* (2007) Off-pump versus on-pump coronary artery bypass graft surgery: differences in short-term outcomes and in long-term mortality and need for subsequent revascularization. *Circulation* **116:** 1145–1152

Premature parental CVD associated with increased risk of vascular calcification

Studies show that individuals with a family history of cardiovascular disease (CVD) are at increased risk of developing CVD themselves. This elevated risk could be conferred through an increased susceptibility to atherosclerosis. Parikh *et al.* examined the association between parental CVD and the occurrence of vascular calcification in participants from the Offspring ($n = 797$; mean age 63 years) and Third Generation ($n = 1{,}238$; mean age 46 years) cohorts of the Framingham Heart Study.

In the Third Generation cohort, the odds of having elevated coronary artery calcium (CAC) were ~2.2 times higher among those whose parents had premature CVD than among those without a parental history of CVD (odds ratio [OR] 2.17, 95% CI 1.41–3.33; $P = 0.0004$). When adjusted for age and sex, a parental history of CVD also increased the risk of abdominal aortic calcification (AAC; OR 1.80, 95% CI 1.25–2.60; $P = 0.002$), but significance was lost when the data were adjusted for other CVD risk factors. Parental CVD was also associated with both CAC and AAC in the Offspring cohort, but the odds ratios were not significant.

In addition, the authors found that having a father with premature CVD increased the likelihood of having elevated CAC and AAC in both cohorts, whereas having a mother with premature CVD did not significantly increase the risk of either outcome. The impact of family history on vascular calcification warrants further study, but it seems that, particularly in younger subjects,