bus stations, ferry terminals and shopping centers. Staff working at these locations undertook training in basic life support and in the use of an AED, which was kept within easy reach in an unlocked cabinet.

During the period of study—equivalent to 20,592 defibrillator-months—172 cardiac arrest victims received initial treatment from the trained lay staff. Shocks were delivered within 3–5 min of collapse to 134 of the 135 individuals in whom a shockable rhythm could be found. As a result of the intervention, 39 (23%) of the 172 patients left hospital alive.

Given the difficulty of performing randomized, controlled trials in this area, these initial findings are likely to be accepted as evidence that the use of AEDs by trained lay people can help to reduce the number of deaths from sudden cardiac arrest.

Ruth Kirby

Original article Davies CS *et al.* (2005) A national programme for on-site defibrillation by lay people in selected high risk areas: initial results. *Heart* **91:** 1299–1302

64-slice CT angiography for the detection of coronary artery stenoses

Multislice CT scanners show promise for the noninvasive detection of coronary stenosis. Rapid improvements in technology mean that newer-generation spiral CT scanners are capable of higher spatial and temporal resolution than earlier scanners; 64-slice coronary artery CT has recently been reported as being highly sensitive and specific for the detection of significant lesions.

Mollet and colleagues used the latest 64-slice CT scanner to assess 52 patients with sinus rhythm presenting with atypical chest pain, stable or unstable angina pectoris or non-ST-segment elevation myocardial infarction, who were referred for conventional diagnostic angiography. The authors found that 64-slice CT coronary angiography detected severe coronary stenoses (≥50% luminal narrowing) with 99% sensitivity and 95% specificity compared with conventional angiography. There was good agreement between the two techniques in classifying patients as having no, single-vessel or multi-vessel disease. The slightly lower specificity in this study was attributed to overestimation of lesion severity by CT scan, which resulted in a number of false-positive outcomes. Severe calcification led to overestimation of lesion severity because of technical artefacts (blooming), and resulted in lower specificity in patients with high calcium scores.

The authors suggest that this noninvasive technique could be used in place of standard coronary angiography in selected patients.

Carol Lovegrove

Original article Mollet NR *et al.* (2005) High-resolution spiral computed tomography coronary angiography in patients referred for diagnostic conventional angiography. *Circulation* **112:** 2318–2323

Impaired lipoprotein catabolism in hemodialysis patients

An increased risk of premature cardiovascular disease has long been recognized in patients with end-stage renal disease treated by hemodialysis. A large number of factors have been associated with this increased risk, including dyslipoproteinemia, however, despite an obviously impaired lipoprotein metabolism, LDL levels are not generally increased.

In a study designed to investigate this apparent discrepancy, Ikewaki and colleagues used stable isotope kinetic studies to investigate the *in vivo* metabolism of apolipoprotein B (apo B)-containing lipoproteins in two ethnically different populations (Austrian-Caucasian and Japanese) of hemodialysis patients ($n = 12$) and controls ($n = 13$). They found that, although serum LDL apo B levels were similar in both groups, LDL apo B fractional catabolic rate in hemodialysis patients was around half that of controls. Similarly, intermediate-density lipoprotein (IDL) apo B fractional catabolic rate was 65% lower in hemodialysis patients than in controls; hemodialysis patients also had 1.5-fold higher IDL apo B levels. The metabolism of VLDL did not vary between groups.

In vivo catabolism of LDL and IDL was seriously impaired in hemodialysis patients, but is masked by normal plasma cholesterol levels. The authors conclude that these findings have important implications for the treatment of hemodialysis patients who are at risk of atherosclerotic disease despite normal cholesterol levels, and recommend kinetic studies investigating the