Requiring doctors to take part in continuing medical education doesn't improve heart attack care

Janice Hopkins Tanne *New York*

Although 34 of the 50 states in the United States require doctors to complete some continuing medical education each year, this requirement does little to improve the outcomes of patients with myocardial infarctions or to increase the use of proved treatments.

The main effect is to increase the use of thrombolytic agents manufactured by drug companies that often sponsor educational events, says a study from Duke University Medical Center in Durham, North Carolina presented at the American College of Cardiology meeting in New Orleans, Louisiana.

Dr Manesh Patel, a cardiology fellow at Duke Clinical Research Institute, told the *BMJ* that no studies have been done

to show whether continuing education is working.

About \$1.5bn (£0.8bn; €1.2bn) is spent on continuing education each year, of which \$720 000m is provided by companies with FDA approved drugs.

Continuing education takes many forms. These include reading a journal article and completing a test afterward, attending conferences of medical societies, taking a course at a university medical centre, or attending an event sponsored by a pharmaceutical company. State requirements vary from 25 to 75 hours a year.

In 2002, Dr Patel said, there were 239 000 hours of continuing education courses and 1.2 million participations by physicians (some of whom

attended more than one event).

His study compared use of aspirin and β blockers at admission and discharge, reperfusion at admission, and 30 day and one year mortality in states that did or did not require continuing medical education. Reperfusion was by angioplasty or stenting or by thrombolytic use.

At the time of the study, 22 states required continuing medical education. The study analysed patients from a Medicare database of patients with acute myocardial infarctions between 1994 and 1996—63 299 in states with no continuing education requirement and 71 310 in states requiring continuing education.

"We know in heart attack patients there are things that work, but continuing education had no effect on aspirin or β blocker use or on angioplasty. There was a small but statistically significant difference in the use of clot-busting drugs," Dr Patel told the *BMJ*. He and his colleagues found that reperfusion therapy with thrombolytic

agents was significantly higher in states requiring continuing education (53.1% v 47.9%, $P<0.0001$).

The investigators controlled for the age of the doctor, for the specialty, whether the hospital had a catheterisation laboratory, whether it was an academic centre, and for patient characteristics such as age, diabetes, previous myocardial infarction, and heart failure.

Aspirin and β blockers are cheap generic drugs, but most thrombolytic agents are not. During the study period, the most heavily promoted drugs were "branded" thrombolytics.

Thirty day mortality was 20.5% in states with no requirement for continuing medical education, and 20.7% in states with a requirement for such education. One year mortality was 35.2% in the first group and 35.0% in the second.

In future, Dr Patel and his colleagues believe a nationwide standardised system is needed to see that doctors receive appropriate continuing education. □

Benefits of implantable cardiac defibrillators in heart failure are confirmed

Janice Hopkins Tanne *New York*

Implantable cardiac defibrillators significantly reduce mortality in patients with heart failure and impaired left ventricular function, a new study shows.

Dr Gust Bardy of the Seattle Institute for Cardiac Research, Washington, reported the study to the conference.

The sudden cardiac death in heart failure trial (SCD-HeFT) was a randomised controlled trial of an implantable cardiac defibrillator in addition to standard treatment. It reduced mortality by 23% in a five year study of 2521 patients at 148 centres in the United States, Canada, and New Zealand. Most patients (77%) were men; the median age was 60, and the median follow-up period was 45.5 months.

Patients had class 2 or 3 heart failure according to the New York Heart Association classification and a left ventricular ejection fraction of 35% or less. Most patients were being

treated with more than one drug: 85% were taking angiotensin converting enzyme inhibitors, 70% digoxin, 69% β blockers, 56% aspirin, 38% statins, 34% warfarin, and 14% angiotensin II receptor blockers.

Patients were randomised to their present treatment with placebo, present treatment with amiodarone, or present treatment with an implantable cardiac defibrillator. The study was double blind with respect to the drug treatments.

After three years the death rate among the patients with defibrillators was 17.1%, compared with 22.3% in patients receiving placebo and 24% in patients receiving amiodarone, said Dr Kerry Lee, associate professor of biostatistics at Duke University in North Carolina, who headed the trial's data coordinating centre.

After five years the death rate was 28.9% in the defibrillator

group, 34.1% in the amiodarone group, and 35.8% in the placebo group, he said.

The study was sponsored by the National Heart, Lung, and Blood Institute. Medtronic supplied the defibrillators and Wyeth Pharmaceutical supplied the amiodarone and the placebo pills.

The authors concluded their study by saying: "The present study shows us once again the dismal prognosis of patients with

reduced left ventricular function and/or symptomatic heart failure.

"The failure of amiodarone to improve survival of these patients is also discouraging, whereas the use of a simple shock-only device confirmed the profound effect on survival reported in all the previous ICD trials, with the important addendum that the benefit is also conferred in patients with non-ischaemic cardiomyopathy." (See News Extra at bmj.com) □