German bears, Greek philosophers and Mediterranean diets – this year's PCCS Annual Scientific Meeting goes European

This year's Primary Care Cardiovascular Society annual meeting was the occasion for a number of firsts. Not only was it the first Annual Scientific Meeting to be held outside England, it was also the first time members had the opportunity to take part in a Socratic Dialogue. The Greek philosopher's technique did stimulate lively interaction and subsequent proceedings proved to be highly participative. With the highest attendance so far recorded, Chairman, Professor Richard Hobbs, felt that the 2002 meeting easily qualified as the best to date. Ola Soyinka reports from Cardiff.

Cholesterol debate

The tone for the afternoon was set with a satellite symposium. This consisted of a debate, sponsored by AstraZeneca, on the motion: 'Unless we ease the pressure on current cholesterol management, GPs will become secondary prevention candidates themselves'. It was ably moderated by the well-known (although non-medical) personality, George Alagaiya, the BBC newscaster. Members of the general population will be relieved to know that he was able to deliver good news. The verdict was that primary care professionals do still think it is worth GPs keeping the pressure up and cholesterol levels down.

Delegates at this year's PCCS Annual Scientific Meeting in Cardiff – their most successful to date

ESC feedback

General practitioners, Dr John Pittard from Staines and Dr Terry McCormack from Whitby, PCCS director and PCCS deputy chairman, respectively, brought delegates up to date with the latest in cardiology with their personal highlights from this year's European Society of Cardiology (ESC) congress. Although this was the best attended PCCS Annual Scientific meeting yet with 130 delegates plus 15 presentations, five workshops, posters for browsing, and at least seven exhibition stands, a suitably awed Terry McCormack described the massive scale of the other major cardiology event on the calendar – the ESC. There were at least 30,000 delegates, exactly 2,500 presentations, 3,200 posters and a massive exhibition hall that offered a mile-and-a-half long walk.

Dr McCormack's eclectic choice included a talk entitled: What is a European cardiologist? He attended sessions on tilt tables, oral thrombin inhibitors, and the new cholesterol absorption inhibitor, ezetimibe. He also admitted visiting the 'Murder Mystery' stand.

Dr John Pittard found Berlin particularly interesting not least because of the presence of numerous polystyrene bears scattered across the city. He summarised higher profile presentations such as OPTIMAAL and the use of losartan 50 mg *vs.* captopril 150 mg in post-myocardial infarction patients. This showed no significant benefit for either drug although it is felt, he said, that the losartan dose was too low. Other presentations on PROGRESS showed the benefits of reducing blood pressure post-stroke even in nor-

motensive patients, and X-SOLVD, showed that early treatment with the angiotensin-converting enzyme (ACE) inhibitor enalapril in heart failure keeps patients out of hospital longer and gives them a better quality of life.

What's new in statins?

Dr Jane Armitage, Honorary Consultant in Public Medicine at the University of Oxford, provided some background and context for the Heart Protection Study (HPS) in her update on statins for delegates. "The HPS has shown that even if you have a low, low density lipoprotein (LDL) cholesterol, it is still beneficial to push it lower," she explained. The study examined a large group of people with elevated cardiovascular risk in whom the benefits of cholesterol lowering were not certain. Over the five-year study period, excellent safety was demonstrated.

HPS: 'We are able to see a significant difference in the need for arterial surgery'

Jane Armitage

Dr Armitage noted that "by the end of the study, about a third of patients on placebo had been started by their GP on a statin". Therefore when looking at the results, she said, it is important to remember that the benefits of reducing LDL cholesterol with 40 mg simvastatin have been diluted. In reality, at this dose, a 1.5 mmol/L drop in LDL would be more likely, she said, making the outcomes of the trial all the more impressive since they show benefit from maintaining an average LDL reduction of only 1 mmol/L of LDL.

Stressing the importance of using the intention to treat analysis, Dr Armitage explained that by excluding patients who took a statin, this compared "a very selected placebo group", which would "lose the benefits of randomisation".

The results of the HPS – a decrease in all-cause mortality driven mainly by a reduction in coronary and other vascular deaths - are now widely known (see *Br J Cardiol* 2001;**9**:16-21). Benefits manifested early – on the need for revascularisation, for example, Dr Armitage pointed out that "in only two years, with 1 mmol/L difference in cholesterol levels, we are able to see a significant difference in the need for arterial surgery".

The trial was big enough for subgroup analysis to yield significant results. For major vascular events, women were shown to benefit as much as men and this study was the first to show a benefit in diabetic patients without coronary disease. The elderly population, and patients with peripheral arterial disease and impaired renal function, all had significant benefit, as did those with low LDL levels. The HPS also showed that patients with a low HDL may get better benefits on a statin than they would on a fibrate.

The trial showed that the treatment benefits were large; they appeared early and grew with time. Quantifying this, Dr Armitage said: "Among the high-risk patients, five years of simvastatin (40 mg) safely prevents about 70–100 people per 1,000 from suffering from a major vascular event". "The key thing is to get people on to treatment and keep them on," she added.

ACE inhibitors and angiotensin II receptor antagonists

In contrast, Dr Gordon McInnes, Consultant Physician from the Western Infirmary, Glasgow, had to be more downbeat in discussing ACE inhibition and angiotensin II receptor antagonist (AIIRA) trials. Recent trials pitching a variety of new drugs including ACE inhibitors against conventional therapies have been disappointing. Commenting on trials, such as STOP2 and others, Dr McInnes was unimpressed. "They have not shown a blind bit of difference," he said.

AIIRAs: 'LIFE is the first trial to show an advantage of a new class over conventional therapy in hypertension'

Gordon McInnes

Interpretation can be controversial. Dr McInnes cautioned against assuming that the HOPE study had been able to show any benefit for ACE inhibition, in this case by ramipril, attributable to more than blood pressure reduction. He suggested that other trials, such as Syst-Eur, had shown similar benefits from blood pressure reductions of similar magnitude to HOPE. His conclusion on the HOPE study was that "all it showed was that if you take a group of high risk patients and reduce their blood pressure, they will do better than if you don't".

The PROGRESS study produced more positive news although, again, he said, it is questionable whether this had anything to do specifically with ACE inhibition. This was a post-stroke active intervention study with patients treated with perindopril and indapamide. There was a highly significant 28% risk reduction but, once again, the results can be explained by blood pressure reduction alone. According to Dr McInnes, the message from this study is that "with patients who have had a stroke we must get blood pressure down to target levels".

Turning to AIIRAs, he said that heart failure trials, such as ELITE II (losartan and captopril), showed equivalence for the drugs, while Val-HeFT was positive for valsartan, mainly in terms of a reduction of hospitalisations. This suggests that AIIRAs have a role in heart failure – either as a combination therapy or monotherapy – if ACE inhibitors are not tolerated.

In type 2 diabetic patients with nephropathy, AIIRAs have proved to be of benefit – the RENAAL, IRMA 2 and IDNT studies have all shown that treatment with irbesartan or losartan is better than conventional treatments at preserving renal function. In this indication, Dr McInnes claimed, "for the same reduction in blood pressure you get more for your money with AIIRAs than with other forms of therapy".

Saving the best till last, Dr McInnes said that the LIFE study was unique, as it was "the first trial to show an advantage of a new class over conventional therapy in hypertension". Treating hypertension in a typical patient population, it demonstrated a highly significant difference between losartan and atenolol in the incidence of fatal and non-fatal stroke. It was well tolerated and losartan also showed greater left ventricular hypertrophy regression on ECG. A diabetic substudy also showed a 40% decrease in all-cause mortality in diabetics. SCOPE with candesartan, although underpowered, seems to support the findings of LIFE.

Socratic dialogue on atrial fibrillation

From a discussion on the meaning of LIFE it was, perhaps, appropriate to move on to a discussion guided by the powerful techniques of dialectical discourse favoured by the Greek philosopher Socrates. The topic for dissection in this instance was the management of atrial fibrillation (AF). Professor Richard Hobbs moderated with support from a panel comprising Dr Mark Davis, Secretary to the PCCS, Ms Jan Proctor-King, Nurse Specialist from Leeds, Dr Jane Skinner, Consultant Community Cardiologist from Newcastle, and Dr David Fitzmaurice, Clinical Reader at the University of Birmingham.

The discussion centred around the diagnosis and treatment of a 66-year-old man presenting with palpitations and a medical history which included type 2 diabetes, hypertension, and a myocardial infarction two years previously. He was otherwise currently well and active. On examination his pulse was irregular and fast.

The general consensus was that an ECG should be done, ideally straight away, to confirm the diagnosis. As the patient had only recently become symptomatic, there could still be an opportunity for cardioversion, which should not be missed. Prompt management could make a big difference to this patient and so an urgent referral is desirable.

The discussion showed how far reality could be from an agreed ideal. It became clear that many practices would find performing an ECG hard to fit into a routine consultation. Although most practices could at some point perform a 12-lead ECG, some could not and many GPs were not confident enough to make an ECG-based diagnosis or to manage the problem – not many practices have AF treatment algorithms or protocols.

Having referred the patient, it was agreed that baseline investigations should be done. Once again, disparity was shown with regard to ability to deal with anticoagulation in primary care. Most would refer to secondary care for this. It was agreed, however, that such a patient should be anticoagulated as soon as possible, preferably with warfarin but at least with aspirin.

Discussion ranged over the limitations of electronic sphygmomanometers, the likelihood of picking up the problem if the patient had not presented with a complaint, the benefits of rate versus rhythm control, and the 'curative' ability of cardioversion (this gentleman had probably only a 30% chance of remaining in sinus rhythm at the end of a year).

Ultimately the dialogue was able to demonstrate that although consensus was relatively easy to reach on the major issues concerning AF management, in practice there were major differences in the ability to deliver optimal management.

Lifestyle interventions

Dr Andrew Neil, Consultant Physician at the Oxford Centre for Diabetes, Endocrinology and Metabolism, reviewed the evidence for the efficacy of lifestyle interventions. "Benefits are

Lifestyle: 'Making a number of small behavioural changes could lead to a useful summation of effects'

Andrew Neil

hard to achieve, and hard to sustain," he said, suggesting that what we really need to know is, firstly, whether these interventions work and, secondly, whether they are they worth the effort.

Dr Neil pointed out that the mean serum cholesterol in the UK, at about 6mmol/L, is too high. It has been estimated that if this could be reduced by 11%, a reduction of 23% in cardiovascular events could be achieved. Small reductions in individual risk would have significant population benefits. So although it is worth the effort, can it be done?

In a typical British diet, if we replace 60% of saturated fats by other fats and avoid 60% of dietary cholesterol, it is possible to reduce total cholesterol by 0.8 mmol/L, with 80% of this reduction being LDL cholesterol. Studies suggest that this is possible in highly controlled conditions. But in free-living individuals, such control is not possible and the above dietary advice alone will certainly not achieve the levels of reduction required.

So what alternatives are there? Dr Neil discussed dietary supplementation – oat bran has been shown to achieve (in free-living subjects) a 2–3% reduction in total cholesterol with a 50–100 g/day intake while soy protein can achieve approximately a 10% reduction in total cholesterol with 50 g/day. Individuals with highest cholesterol levels have most to gain. Many claims have also been made for the popular additive, garlic – it is just possible that consumption of several cloves a day may reduce total cholesterol by a small amount.

Nutraceuticals or functional foods, such as plant sterol and stanol-enriched spreads, reduce the dietary absorption of cholesterol. Dr Neil suggested that approximately 2 g of plant stanols or sterols per day will bring down LDL cholesterol by 10%. This, however, translates to a rather high 25 g of spread per day. Fish oils containing omega-3 fatty acids (i.e. eicosapentaenoic acid and docosahexaenoic acid) can reduce triglyceride levels and also have a beneficial effect on inflammation and thrombosis. This can be achieved by the consumption of one to two portions of oily fish per week although the current worry about heavy-metal contamination of fish, like mackerel, suggests a limit of one portion per week would be safer. An alternative is a preparation, such as Omacor™, which can provide these fatty acids in capsules.

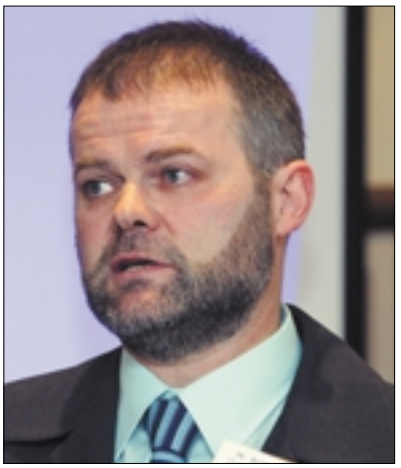
Dr Neil reaffirmed the benefits of fruit and vegetable diets. They are rich in potassium (potassium has been shown to have an inverse relation to stroke risk) and also replace more harmful dietary elements. He recommended about five portions of fruit and vegetables a day. Dr Neil suggested that the food industry, perhaps encouraged by legislation, has an important role to play in reducing the salt and saturated fat content of prepared foods.

Concluding, Dr Neil said that although in free-living individuals there is difficulty in sustaining a cholesterol-reducing diet, a wide range of not too unpalatable measures has been shown to have small but significant effects. He recommended making "a number of small behavioural changes" which could lead to a "useful summation of effects".

Individuals at modest risk will get modest value, he said, but overall this strategy would lead to a valuable reduction in population risk. As a bonus, evidence also suggests that cancer risk, glucose intolerance and diabetes would also be reduced.

CHD partnerships

The current organisation of primary care cardiology services in Wallasey has been in response to the area's above average standardised mortality ratio (SMR). Dr Anthony Cummins, GP and Cardiovascular Advisor for Birkenhead and Wallasey PCT, noted that the area had a high prevalence of established coronary heart disease and cardiovascular risk factors. In particular, there were pockets of very raised SMRs and many areas with problems



'Standardised mortality ratios have fallen from above to below the national average as a result of collaboration'

Anthony Cummins

of access to services. To try to improve the cardiovascular health of the population of 79,000, the Wallasey Heart Centre (WHC) has been set up, with partnerships developed between the Primary Care Group, the community trust and health authority.

Services provided under this partnership include a GP specialist, a community nurse cardiology training programme, cardiac rehabilitation (to include angina and post-coronary artery bypass graft patients) and an exercise and lifestyle clinic. The lifestyle clinic, for example, is an extension of a pre-existing exercise prescription scheme and has been funded by a HIMP reward scheme. Patients can be referred for supervised exercise sessions at local leisure centres and can also be offered weight and stress management sessions, plus referral to a smoking cessation clinic.

The WHC's central location makes it easily accessible by patients, who are mainly referred here with uncontrolled hypertension, angina and hyperlipi-

daemia. The result has been, Dr Cummins explained, that 80% of the patients seen have gone back to their GPs with management advice or a protocol. The remainder have been referred on to secondary care. "Patients now get more information and are more involved in their own care – as a result concordance has improved greatly," he added.

The partnerhip has been a success. A convincing demonstration of this is in the graphical presentation of the effects of these initiatives. This shows a falling SMR (now below the national average) with a recent steepening of the downward trend. The collaboration of a range of individuals and agencies, from exercise physiologists and nurses to borough councils and local charities, has proved that joined-up care can help patients make real changes in their lives which impact on health within a short space of time.

Guidelines – do they play an effective role?

"Guidelines are about identifying and treating patients at risk and there is consistent emphasis on patients with established disease." This is how Professor Richard Hobbs began his presentation on current cardiovascular guidelines. Patients with established disease are the easiest group, he said, as having identified themselves, the emphasis is on treatment. But he stressed the importance of beginning to identify and prevent disease in patients who are at high risk, and do not have established disease. "At some stage we are going to need to tackle primary prevention," he said, adding that "we will be unable to continue for much longer with a policy that says you have got to have a major event before you qualify for treatment". "A significant proportion of people do not survive their first event," he said, pointing out that this is against the basic NHS objectives of equity of access and treatment.

Primary prevention is complicated, he said, since patients have to be searched out and doctors will need to be able to use tools, such as risk assessment charts, to ascertain when to intervene. Doctors rarely get formal training in using such tools, he said, and this may be a barrier to guideline implementation, he feels.

Guidelines: 'We will be unable to continue for much longer with a policy that says you have got to have a major event before you qualify for treatment'

Richard Hobbs

Despite the relative ease of treating hyperlipidaemia, surveys such as EUROASPIRE, show that we are not conforming to existing recommendations. Professor Hobbs looked into some of the reasons why this might be. A study from the Netherlands showed that an intensive guideline education and feedback programme for doctors made no significant difference in cholesterol level improvements compared to doctors who simply received the guidelines in the post. It concluded that barriers to implementation included the difficulty of incorporating testing, advice and management into routine consultations, contamination by doubts about (any part of) the evidence behind the guidelines, and fears about complexity or the demands of implementation causing additional work.

Professor Hobbs has published the REACT study. In this the main barriers found were a lack of time, prescribing costs, lack of patient compliance, and a surfeit of guidelines. There is also a problem with the public appreciation of coronary heart disease risk factors. Surprisingly, many patients still do not connect cholesterol and even smoking to heart disease.

The way forward, suggested Professor Hobbs, may be firstly to target specific groups who are at higher risk and in whom we know treatment will make an impact. This would include, for example, the overweight and patients with previous vascular disease. We must not stop treating the elderly and we must be more aggressive with the treatment of diabetic patients. The HPS study has shown us that any patient who is at high risk will benefit whatever the levels of their cholesterol. In such cases "we should not be thinking about thresholds", he advised.

Dancing, workshops, and a call for acronyms

The plenary sessions are only part of the fare for delegates at the PCCS annual meeting. There is the regular 'Dinner and Disco' which usually tempts some delegates into a late night and perhaps a lie-in the next morning. Fortunately, most people are back in circulation by the time the workshops start and, this year, there were plenty to choose from. Sessions included:

- Implementing the National Service Framework for Coronary Heart Disease in the Durham Dales. This Primary Care Trust has won two national awards for implementation and team performance.
- The role of the Angina Nurse Specialist and a cognitive-behavioural rehabilitation programme for people with angina, 'The Angina Plan'. This has had much success in altering unhelpful patient beliefs and reactions to chest pain. This

results in patients developing coping strategies that can significantly lessen angina frequency and severity.

- An in-depth look at the Framingham risk-scoring in primary prevention, as incorporated into the EMIS system.
- Practical advice on setting up and running an anticoagulation clinic in the Primary Care Trust.
- How to determine and appropriately manage the 'end-of-life' stage in heart failure where terminal stages can be unpredictable with patients often recovering from crises. This included a discussion of the role of brain natriuretic peptide (BNP) and other markers in predicting this phase.
- Posters and presentations included focusing the soon-to-be-launched 'superstatin' – rosuvastatin (Crestor®). These demonstrated that rosuvastatin was able to get more patients to their target LDL cholesterol levels than atorvastatin and is also effective at raising HDL cholesterol levels and lowering triglycerides.

New anticoagulation group

The inauguration of a new society – the British Primary Care Anticoagulation Society – was announced at the meeting. Dr David Fitzmaurice explained that in addition to providing a forum for the dissemination of best practice, and developing guidelines and protocols, the society (which will become a special-interest group affiliated to the PCCS) requires a catchy acronym. Dr Fitzmaurice is therefore calling for anyone who feels inspired to help rename the group as well as inviting interested primary care professionals to join. For further information, contact the PCCS on telephone: 020 8994 8775 or email: gillbrown@pccs.org.uk.

'Calling for members to the newly formed British Primary Care Anticoagulation Society'

David Fitzmaurice