The Third UK Primary Care Cardiovascular Conference, hosted by the Primary Care Cardiovascular Journal (PCCJ) and the British Journal of Primary Care Nursing (BJPCN), attracted GPs, practice nurses and other primary care professionals determined to make a difference in the care of patients with cardiovascular disease (CVD). Chaired by Professor Mike Kirby and Jan Procter-King, Editors of respectively PCCJ and BJPCN, this highly interactive meeting offered delegates the opportunity to attend keynote lectures, panel discussions, workshops and satellite symposia. This report can only present the highlights of this very successful meeting but more resources, including key presentation slides and speaker interviews, are available at www.issuesandanswers.org.

"Despite everything we have achieved in CVD treatment, over half of us sitting in this room are destined to either have a complication or die from some form of atherosclerotic disease. So we must consider how to deal with CVD in a different way," said Professor John Deanfield, Chair of JB3. At present, cardiovascular risk is addressed in its clinical phase when the underlying atherosclerotic process is largely irreversible and patients present with cardiovascular events such as myocardial infarction (MI) or stroke. "We do not pay attention to the long, preclinical phase of atherosclerosis during which time our genes, environment and risk factors are conspiring to drive the development of disease. This 50-year window is our opportunity for CVD prevention," he explained.

There is increasing evidence that exposure to risk factors over time drives the development of atherosclerosis. As a result, early intervention, rather than just aggressive intervention in later disease, may well pay important long-term dividends in reducing the development of CVD. "We should not wait for a dyslipidaemic patient to reach middle age before starting therapy," commented Professor Deanfield. Clinical guidelines have, however, until recently concentrated almost exclusively on 10-year cardiovascular risk, effectively disenfranchising high-risk younger people, and especially women, from risk factor management of their future CVD.

JB3, which was published in 2014, continues to support active management with drugs for people with a high 10-year risk, but also adopts a strategy of ‘investing in your arteries’ to address long-term CVD risk. This lifetime approach to CVD prevention uses a new risk factor calculator (now available as the JB3 Heart Risk app). It also introduces the concept of ‘heart age’ to empower individuals to understand their disease and make small, sustained lifestyle changes to improve their cardiovascular health and gain years of healthy life expectancy. "I think this will change the way you interact with your patients in primary care, enabling you to have a conversation about cardiovascular risk and provide personalised advice, not just for people at high short-term risk but for any patient," concluded Professor Deanfield.
ISSUES AND ANSWERS IN CARDIOVASCULAR DISEASE

KEEPING CARDIAC PATIENTS OUT OF HOSPITAL

HEART FAILURE AND OEDEMA
Ahmet Fuat, GPwSI Cardiology, Darlington: People with heart failure (HF) often experience breathlessness and, as the condition worsens, accumulation of fluid in the lower limbs and the abdomen. In a two-year pilot programme, the British Heart Foundation is funding heart failure specialist nurses (HFSN) to help develop and introduce community-based diuretic services within 12 existing HF services. The pilot includes 96 patients, 56% of whom had been admitted at least once in the past year for intravenous diuretics. Of 126 interventions undertaken, 63% were clinically successfully, 16% partially successful, and 21% required admission. Complications were similar to those seen in hospital, 56% of interventions experiencing no complications. The project has been highly cost effective, saving 868 bed days with net total savings of £199,457.

HYPOGLYCAEMIA
Mike Kirby, Visiting Professor, Faculty of Health and Social Sciences, University of Hertfordshire: Hypoglycaemia is often confused with other conditions, and its frequency and severity are commonly underestimated. There are multiple risk factors for hypoglycaemia, but repeated episodes result in defective counter-regulation and impaired awareness, leading in turn to greater vulnerability to further episodes of major hypoglycaemia. Healthcare professionals should be aware of the possibility of iatrogenic hypoglycaemia following a prescription of an interacting drug. For example, commonly prescribed antimicrobials such as clarithromycin, levofloxacin, metronidazole and ciprofloxacin are associated with higher rates of hypoglycaemia in patients taking sulphonylureas.

FALLS—DON’T MENTION THE F WORD
Chris Arden, GPwSI Cardiology, Southampton: Vitamin D supplementation, Tai Chi and professional home assessment each reduce the risk of falls among community-dwelling elderly people in clinical trials. However, since falls have multifactorial causes, a range of interventions and, where appropriate, referrals is likely to be needed to reduce an individual’s risk in primary care. A patient with orthostatic hypotension, for example, requires a medication review and education on this risk factor, with consideration of vitamin D. They also need review of visual acuity by an optician, and referral for physical therapy and gait assessment to improve their balance and increase their leg strength. Simple, practical measures—for example, nightlights and handrails in key areas like the bathroom—also help to reduce risk and fear of falling.

NHS HEALTH CHECK UPDATE: HOW ARE WE DOING?

“The NHS Health Check is based on targeting the major causes of cardiovascular mortality. The rationale is that two thirds of premature cardiovascular deaths in England could be avoided through prevention,” said Dr Matt Kearney, GP, Runcorn, and National Clinical Advisory, Public Health England (PHE) and NHS England (NHSE).

Doubts about the NHS Health Check’s evidence base were fuelled in 2012 by a Cochrane systematic review that concluded that general health checks do not reduce morbidity and mortality. Similarly, the Inter99 trial (2014) found that systematic screening for risk factors and lifestyle counselling have no effect on the population incidence of ischaemic heart disease, stroke or mortality after 10 years. The Health Check is not a single intervention at a single point in time, but a pathway for evidence-based interventions. However, Dr Kearney accepted that, despite important caveats, these studies do raise important challenges about the delivery, design and targeting of NHS Health Checks.

It also has been argued that CVD risk assessment, lifestyle advice and disease management are standard in general practice. Dr Kearney agreed that the NHS has excellent primary care, but emphasised that continuing with the current approach of opportunistic case finding will not improve outcomes. He concluded: “The NHS Health Check is a rational approach, but must evolve in response to the evidence. As GPs, we also need to champion prevention and early diagnosis of CVD, which is a core primary care business. Waiting till our patients get sick is not an evidence-based option.”

Jamie Waterall, NHS Health Check National Lead, PHE, reported significant improvement in delivery of the NHS Health Check. However, local authorities continue to vary widely in the number of offers and uptake of the test. He recommended that delegates use the new PHE ‘heat map’ tool (http://healthierlives.phe.org.uk) to compare local performance. “Clearly, we need to examine why some areas are able to achieve such high rates of offers and uptake of the Health Check,” he commented.

Mr Waterall added that, in response to feedback from colleagues in primary care and local authorities, Health Check governance has been strengthened. A new competency framework has been introduced, together with a Quality Improvement Framework to ensure quality and safety, and to raise standards. Work is also under way to develop a website to raise awareness among the general public, and to explore how to incorporate the concept of ‘heart age’ into the NHS Health Check, to be complemented by a tool on NHS Choices.

“On the NHS Health Check will only be successful if Public Health and the NHS continue to work together. The evolving programme and the Five Year Forward View’s emphasis on prevention mean that we all have a real opportunity to build on achievements to date,” he concluded.
TRANSLATING GUIDELINES INTO DAILY PRACTICE

Key messages from presentations on critically important areas of CVD management in primary care

**ATRIAL FIBRILLATION**

“This is a new age of thromboembolic care, when clinical commissioning groups must have an anticoagulation strategy,” commented Dr Matthew Fay. NICE 2014 atrial fibrillation (AF) guidelines recommend manual pulse palpation to assess for the presence of irregular pulse in at-risk patients, followed by ECG to confirm the diagnosis. These updated guidelines also recommend switching from CHADS2 to CHA2DS2-VASC to assess stroke risk in AF and that, with the exception of those scoring 1 or 0, every at-risk patient should receive oral anticoagulation. HAS-BLED is used to assess risk of bleeding on anticoagulation, but scores should not be a reason to exclude patients from treatment but to address modifiable risk factors. Aspirin is no longer recommended in AF, as it is less effective than oral anticoagulation with the same risk of bleeding. Non-VKA oral anticoagulants (NOACs) are at least as effective as VKA anticoagulants such as warfarin, and are associated with a significantly lower risk of intracranial bleeding, intracerebral haemorrhage and life-threatening bleeds. However, their availability varies widely, due in part to their acquisition cost, but also to concerns about reversal and monitoring. Regardless of anticoagulant, adherence is essential and a new website, www.careaef.org, offers a patient support programme to help people with AF to manage their condition.

**CHRONIC KIDNEY DISEASE**

“Chronic kidney disease (CKD) has been described as ‘bad medicine’, causing over-diagnosis, over-treatment and anxiety for patients. But it is important to remember that CKD can be prevented and reduced, and doctors and patients should be aware of the diagnosis,” said Dr Kathryn Griffith, GP and RCGP Clinical Champion for Kidney Care. Laboratory reporting of estimated glomerular filtration rate (eGFR) enabled CKD staging. There have, however, been concerns that the creatinine-based MDRD equation (recommended by NICE in 2008) is not accurate in the elderly and patients with near normal kidney function. The 2014 updated NICE guidelines recommend switching to the CKD-EPI equation, which also uses creatinine but is more accurate. To address concerns about over-diagnosis, NICE recommends using a new test, cystatin C, when there is doubt: for example, for young, fit patients with no proteinuria and high creatinine simply due to their muscle mass. Albumin in the urine is a sign of kidney damage, and the new guideline introduces three simplified categories for proteinuria that apply to both sexes. Finally, there are new CKD categories that correspond to the previous stages, but more clearly define risk and follow-up for each patient.

**FAMILIAL HYPERCHOLESTEROLAEMIA**

Familial hypercholesterolaemia (FH) is an autosomal dominantly inherited genetic condition, causing high levels of low-density lipoprotein cholesterol (LDL-C) that result in a very high risk of premature CVD. Dr David Milne, GP and Co-Chair, HEART UK FH Implementation Team, reported that, although FH can be easily diagnosed and treated, only around 15,000 of the estimated 120,000-300,000 people affected have been identified. In 2008, NICE concluded that cascade testing, with cholesterol and DNA tests in affected families, followed by statin therapy, is cost effective and delivers optimum health outcomes. Wales has introduced a diagnostic service for FH, but NICE’s FH guidelines have not been implemented in England. FH has, however, been included in the Cardiovascular Disease Outcomes Strategy and there is a NICE FH Quality Standard (QS41). Other initiatives include a HEART UK series of articles in PCCJ, BHF funding for cascade testing nurses, and local HEART UK projects designed to help identify FH patients and their families. Primary healthcare professionals can also help to improve outcomes by: bearing in mind the possibility of FH; ensuring well-established local referral and care pathways; working with local genetics services; including FH in local health promotion campaigns; and ensuring that patients are aware of information available at HEART UK.

**AND THE WINNERS ARE...**

The Best Practice Poster Award 2014

The Best Practice Award recognises success in turning best practice into everyday practice, and the winner is chosen by delegates attending the UK Primary Care Cardiovascular Conference. Congratulations to this year’s winner.

Prevention of diabetes through NHS Health Checks programme

Cathy Aiken and Gillian Fiumicelli

Sponsored by BJPCN & PCCJ

HEART UK NHS Health Check Awards

Most Improved Service Delivery

Public Health, London Borough of Ealing, Dr Sapna Chauhan, Anita Gaida and Alina Rohnan

Sponsored by Sanofi

Best Impact on Patient Experience

Public Health, Leeds City Council. Diane Burke, Lucy Russell and Hanna Kirby

Sponsored by Alere

Team/Group of the Year

Public Health, London Borough of Lewisham. Dr Arun Gupta and Josephine Edu on behalf of Francis Fuller

Sponsored by Smart Health

PCCJ/BJPNCN Conference 2014 Highlight Report
**IS THE METABOLIC SYNDROME FACT OR FICTION?**

**Beverley Bostock-Cox, Nurse Practitioner/Prescriber:**

The metabolic syndrome is not a disease, but a combination of risk factors such as central obesity, hypertension, lipid abnormalities and high blood glucose. People with the metabolic syndrome have three times the risk of MI or stroke, twice the risk of cardiovascular death, and five times the risk of developing type 2 diabetes. The metabolic syndrome is reversible and, though drug treatment may be indicated, the first step is to discuss lifestyle interventions with patients that address the components of the metabolic syndrome and reduce their risk of developing type 2 diabetes and CVD. For example, losing 10% of body weight more than halves the risk of progression from impaired glucose tolerance to type 2 diabetes.

**AFTER METFORMIN: WHAT NEXT?**

**Naresh Kanumilli, GPwSI Diabetes, Manchester:**

When managing patients with type 2 diabetes, our aim should be the three Ps: personalise therapy, prevent macrovascular complications, and protect against microvascular complications such as retinopathy, nephropathy and neuropathy. So when blood glucose is no longer controlled to the patient’s target level on the optimal dose of metformin, it is time to think about another therapy. Sulphonylureas are the usual second-line therapy according to NICE, but are associated with weight gain and hypoglycaemia. DPP-4 inhibitors, pioglitazone, SGLT2 inhibitors and GLP-receptor antagonists have a low risk of hypoglycaemia and are either weight neutral or associated with weight loss. Some patients need insulin, and should be informed of the importance of self-monitoring of blood glucose and the need to inform the Driving and Vehicle Licensing Agency (DVLA). Finally, diabetes treatment should always be tailored to the patient’s needs and preferences, but choice may be limited for patients with impaired renal function.

**DIFFERENTIAL DIAGNOSIS OF BREATHLESSNESS**

**Jim Moore, GPwSI, Gloucestershire Heart Failure Service:**

Breathlessness is common and has many diverse, sometimes rare causes, so it is important to expect the unexpected. A joint initiative of the Primary Care Respiratory Society and the British Thoracic Society, IMPRESS (Improving and Integrating Respiratory Services) was established in 2007 to provide clinical leadership to drive improvements in the care of breathlessness. Publications include Breathlessness IMPRESS Tips (BITs) for clinicians, commissioners and patients, and a very helpful algorithm on assessing and managing long-term/chronic breathlessness. This algorithm combines guidance on asthma, chronic obstructive pulmonary disease (COPD), heart failure, anxiety and anaemia. All IMPRESS publications can be freely downloaded at www.impressresp.com.

**PERIPHERAL ARTERIAL DISEASE**

**Terry McCormack, GPwSI, Whitby:**

Lifestyle measures, especially smoking cessation, remain key for patients with peripheral arterial disease. Lipid optimisation is an important component of secondary prevention, but some patients, especially those with FH, do not achieve their lipid targets on a high-dose statin, with or without ezetimibe. Proprotein convertase subtilisin/kexin type 9 (PCSK9) is a secretory serine protease that regulates the amount of LDL-C in the plasma. Four monoclonal antibodies that inhibit PCSK9 are now under investigation. These drugs, which are injected subcutaneously once or twice monthly, reduce the concentration of PCSK9 in plasma and enhance hepatic cycling of the LDL receptor. In phase 2 and 3 studies, treatment with the PCSK9 inhibitors alirocumab and evolocumab reduced in LDL-C by 45-70% in patients with heterozygous FH. The efficacy of PCSK9 inhibitors in combination with optimal lipid-lowering therapy in other patients at high risk of CVD is now under investigation in large clinical outcome trials, such as FOURIER.