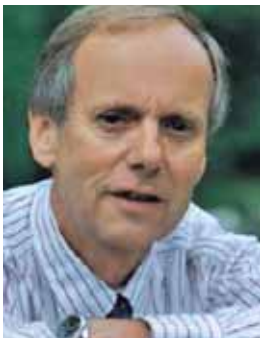


The urine tells a tale

'When the patient dies, the kidneys may go to the pathologist, but while he lives the urine is ours. It can provide us day by day, month by month, and year by year, with a serial story of the major events going on within the kidney.'

(Thomas Addis, 1881–1949: US physician, San Francisco, writing in *Glomerular Nephritis, Diagnosis and Treatment*)



Professor Michael Kirby

UK Editor of *PCCJ*
Visiting Professor, Faculty of Health and Human Sciences, Centre for Research in Primary and Community Care (CRIPACC), and the Clinical Trials Coordinating Centre, University of Hertfordshire, Hatfield, UK.

Prim Care Cardiovasc J 2009;
Special Issue: Chronic Kidney Disease: 5–7
doi:10.3132/pccj.2009.026

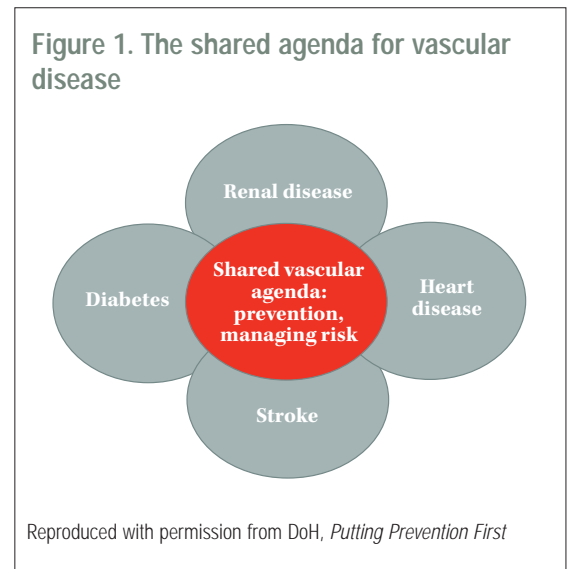
This quotation sets the scene for this special issue of the *Primary Care Cardiovascular Journal (PCCJ)* focusing on chronic kidney disease (CKD), which aims to tell the 'serial story of the major events going on within the kidney' in this common condition, and on the central role of GPs in detecting CKD early and providing evidence-based care.

CKD is an important component of vascular disease, which also includes coronary heart disease (CHD), stroke and diabetes. Vascular disease affects more than four million people in England and is responsible for 170,000 deaths per year (36% of all deaths), one-fifth of all hospital admissions and is the largest single cause of long-term ill-health and disability.¹

Over the past decade, we have seen significant improvements in the treatment of vascular disease, starting with the *National Service Framework on Coronary Heart Disease* and moving on to both diabetes and renal services. This has included a 40% reduction in deaths from cardiovascular disease in people less than 75 years of age since 1996. Primary care can take much credit for this in terms of earlier identification of disease as well as improved management and better control of risk factors.

Despite this achievement, vascular disease remains a major cause of illness, disability and premature death. In order to address the problem, the Department of Health announced plans in April 2008 to introduce a comprehensive vascular risk assessment and management programme for all people aged between 40 and 74 years, based on recommendations by the National Screening Committee.¹ This aims to shift the emphasis from managing complications to the primary prevention of vascular disease (see Figure 1). The programme has now been launched with the new name NHS Health Check.

The key aims of the programme include earlier education of people at high vascular risk; prevention of diabetes; reduction of premature mortality and increased life expectation; and reduction of inequalities including socio-economic, ethnic and gender inequalities.¹ It is estimated that the programme has the potential to



eventually prevent 9,500 heart attacks and strokes, saving 2,000 lives each year. It could also prevent 4,000 people per year from developing diabetes and allow the earlier detection and management of at least 25,000 cases of diabetes and kidney disease each year.¹

Currently, the strongest evidence is for screening the population for those at risk of developing cardiovascular disease, diabetes or renal disease. The expected impact of this programme was reviewed by Kamlesh Khunti *et al.* in the July 2008 edition of the *PCCJ*.²

The *Handbook for Vascular Risk Assessment, Risk Reduction and Risk Management*,³ which was commissioned by the UK National Screening Committee and complements the Department of Health's *Putting Prevention First* document¹ provides a very practical resource. It outlines the evidence for a co-ordinated vascular disease control programme, suggests a delivery strategy and provides examples, tools and resources that can be used for health professionals implementing the NHS Health Check programme. Methods for vascular risk assessment are comprehensively reviewed.

“
Innovative approaches will be necessary to reduce inequalities and target those who are hard to reach
 ”

What will be needed is an agreed protocol and defined method for the whole country, which can be adapted for local use. Comprehensive guidance is available for the management of overall cardiovascular disease, the risk factors in the general population and recommended lifestyle measures and pharmacological treatments.⁴⁻⁷ However, primary care trusts will need to take a lead on this, using locally available skills and resources.

Educational initiatives will be critical in relation to communicating risk and involving patients in decisions about their own care, which will improve concordance.⁸

Innovative approaches will be necessary to reduce inequalities and target those who are hard to reach. This will mean using a variety of approaches, offering checks within primary care but also at other locations, such as pharmacies, health clubs, social clubs and sports grounds. Adequate funding will be the key to success, together with enthusiasm for the task.

Pay for performance incentives have been under scrutiny in 2008, and Martin Gulliford and colleagues have shown that the introduction of pay for performance may be one factor contributing to increasing achievement of targets and reducing problems of low performance with regard to haemoglobin A_{1c} (HbA_{1c}), blood pressure and cholesterol control.⁹ Mark Ashworth and colleagues showed that blood pressure monitoring and control improved substantially after the introduction of payment related to targets, at the same time as virtually obliterating the achievement gap between the least and most deprived areas.¹⁰ In addition to this, exception reporting rates are at their lowest-ever level. Statistics compiled by the NHS Information Centre (www.ic.nhs.uk) show the national rate of exception reporting in England in 2007/08 was 5.2% across all indicator groups. The largest reduction was seen in CKD, which fell from 14.28% to 6.83%. The highest exception rate of 26.5% was in CHD 10 indicator, which is the percentage of patients with CHD who are using beta-blockers, for which there may, of course, be good reasons.

Despite the media hype about Quality and Outcomes Framework (QOF) payments, we know that the quality of care was improving in several clinical conditions long before 2004, and, importantly, there is evidence to show that practices have delivered the same quality of care both in the US and the UK for conditions not included in the pay for performance scheme.^{11,12} A report by the BMA in Scotland¹³ draws together the findings of research on the impact of QOF, which is considered to have been an important factor in reducing hospital admission rates for heart attack, stroke and type 2

diabetes, a subject of much interest for commissioning groups.

We hope this special issue of the *PCCJ* will inspire you to keep up the good work in CKD and equip you with the information and resources to go even further. Diagnosing CKD and monitoring kidney function are key steps in improving management. Robert Lewis, Consultant Nephrologist with Wessex Regional Renal and Transplant Unit reviews the recommendations on making a diagnosis of CKD, including staging patients, and the tests available for monitoring kidney function, with explanations of how to test patients, what the findings mean, and how to act on the findings. He then goes on to detail the pathophysiology underlying CKD, explaining that it is characterised by irreversible renal scarring. Nephrologists draw the distinction between primarily glomerular scarring (glomerulosclerosis) and scarring centred on the kidney tubules (chronic tubulointerstitial nephritis). However, in clinical practice, glomerulosclerosis is by far the most common pattern in CKD and this article focuses on this type of renal injury.

In this issue's Hot Topic review, Karen Jenkins, Consultant Nurse – Kent Kidney Care Unit at East Kent Hospitals University NHS Foundation Trust takes a careful look at how to optimise the management of CKD in clinical practice. She points out that it is now recognised as a significant public health problem and that it overlaps with other chronic diseases, including diabetes and hypertension, and should not be managed in isolation. As vascular risk assessments are coming into place for the general population and there are strong links with vascular and kidney disease, CKD is becoming an integral part of chronic disease management.

George is 62 years old and a retired policeman. He has had hypertension for 10 years, and has been attending for his annual reviews at the practice vascular clinic. The practice protocol recommends that all patients attending the clinic have blood taken to check for renal function. In Spring 2006 the local laboratory followed national guidelines and included an estimated glomerular filtration rate (eGFR) report in patients whose creatinine levels were above the upper limit of normal. George's creatinine level for his visit in early 2008 was 166 µmol/L and his eGFR was 38 mL/min/1.73 m². Is this chronic kidney disease (CKD)? Kathryn Griffith, a GP at the University Health Centre, York takes a 'hands on' look at how to manage a patient with cardiovascular disease in practice, and where CKD fits in.

With good practical advice from National Institute for Health and Clinical Excellence (NICE) guidelines and QOF

catching up with the evidence, general practice teams are now better placed to manage patients with CKD. Alan Begg, GP and Honorary Senior Lecturer, University of Dundee, reviews the evidence for the value of angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers in CKD, but cautions that close monitoring of eGFR and electrolytes are essential. Ivan Bennett, GP with a special interest in cardiology, Manchester, looks at how to implement NICE guidance on CKD.

We are delighted that Simon de Lusignan and colleagues have published their research study on CKD management in southeast England in this special issue of the *PCCJ*. Their cross-sectional report from the QICKD – Quality Improvement in Chronic Kidney Disease study – used routinely collected data from a representative sample of 14 practices across Surrey that were extracted as part of a quality improvement study. They found that the prevalence of CKD is lower than suggested by previous studies, but considered that this may reflect the lower levels of cardiovascular disease associated with a healthier lifestyle in the Southeast. However, they found scope to further improve the quality of CKD management in Surrey, concluding that programmes carefully targeted at high-risk groups could slow the progression of CKD and therefore reduce the need for renal replacement therapy.

Finally, we provide the answers to those niggling questions you may have had about CKD. For example: Is it likely that an eGFR < 60 mL/min/1.73 m² in elderly patients usually reflects normal ageing rather than disease? Robert Lewis, Consultant Nephrologist, Wessex Regional Renal and Transplant Unit, gets in the firing line to answer ten key questions on chronic kidney disease.

By the time you have read this special issue of *PCCJ* you should feel raring to ensure that CKD is fully incorporated into your day-to-day management of vascular disease. And our Resources section is a real treasure trove of useful resources, patient education materials, professional training resources and tools to help your management of CKD go from strength to strength.

I want to thank the Renal Tsar, Dr Donal O'Donoghue, and NHS Kidney Care, led by Beverley Matthews, for recognising the importance of GPs in improving the detection and management of CKD in primary care and supporting this special issue of the *PCCJ*. Thanks also to the members of the CKD Forum who have very willingly (even gladly!) given their time and writing skills to ensure that the articles in this issue are absolutely on target to help us improve the primary care management of CKD throughout the UK.

References

1. Department of Health. Putting Prevention First – Vascular Checks: Risk Assessment and Management (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_083822). 2008.
2. Khunti K, Hiles SL, Davies MJ. Reducing the impact of vascular disease: the proposed Vascular Risk Programme for risk assessment and management. *PCCJ* 2008; 1: 72-6, doi: 10.3132/pccj.2008.021.
3. Handbook for Vascular Risk Assessment, Risk Reduction and Risk Management: a report prepared for the UK National Screening Committee (http://www.nsc.nhs.uk/Library/lib_ind.htm). 2008. university of Leicester.
4. JBS2. Joint British Societies' guidelines on Prevention of Cardiovascular Disease in Clinical Practice. *Heart* 2005; 91: 1-52, doi:10.1136/hrt.2005.079988.
5. Scottish Intercollegiate Guidelines Network. Risk estimation and the prevention of cardiovascular disease: a national clinical guideline. (<http://www.sign.ac.uk/guidelines/fulltext/97/index.html>). 2007.
6. National Collaborating Centre for Primary Care. Cardiovascular risk assessment: the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. (<http://www.nice.or.uk/nicemedia/pdf/Fullguidance.pdf>). 2007. Royal College of General Practitioners.
7. National Institute for Health and Clinical Excellence. Hypertension: management of hypertension in adults in primary care. (<http://www.nice.org.uk/CG034>). 2006.
8. Gigerenzer G, Edwards A. Simple tools for understanding risks: from innumeracy to insight. *BMJ* 2003; 327: 741-4, doi:10.1136/bmj.327.7417.741.
9. Vaghela P, Ashworth M, Schofield P *et al*. Population intermediate outcomes of diabetes under pay for performance incentives in England from 2004-2008. *Diabetes Care* 2009; 32: 427-9, doi:10.2337/dc08-1999.
10. Ashworth M, Medina J, Morgan M. Effect of social deprivation on blood pressure monitoring and control in England: a survey of data from the Quality and Outcomes Framework. *BMJ* 2008; 337: a2030, doi:10.1136/bmj.a2030.
11. Ganz DA, Wenger NS, Roth CP *et al*. The effect of a quality improvement initiative on the quality of other aspects of health care. The law of unintended consequences? *Med Care* 2007; 45: 8-18, doi:10.1097/01.mlr.0000241115.31531.15.
12. Steel N, Maisey S, Clark A *et al*. Quality of clinical primary care and targeted incentive payments: an observational study. *Br J Gen Pract* 2007; 57: 449-54.
13. Quality and Outcomes Framework: Modernising Healthcare Delivery and Improving the Management of Patients with Long Term Conditions. Available at www.bma.org.uk/ap.nsf/Content/qualityingeneralpractice (Accessed 09.01.09)