EDITORIAL

National variations in cardiac service provision: how united is our kingdom?

M S Norell, K P Jennings

Has devolution in the UK brought about a disparity in cardiological resources, putting those citizens in the devolved countries at a disadvantage?

A report from a British Cardiac Society working group has shown that the provision of cardiac services in England, Scotland, Wales, and Northern Ireland varies considerably. Could one effect of devolution of the UK be a disparate application of cardiological resources to the disadvantage of citizens in the devolved countries?

While the National Service Framework (NSF) for coronary artery disease (CAD)¹ has heralded tangible improvements in cardiac services across England, these changes are not so apparent in Wales, Scotland, or Northern Ireland where the NSF had no mandate. Similarly, the Myocardial Infarction Audit Project (MINAP) and the National Institute for Health and Clinical Excellence (NICE) have driven change in England, but in Scotland, for example, these instruments do not apply. Predictably this has generated concern that the effect of devolution may have been to allow the development of different management priorities and thereby potentially to disadvantage citizens with cardiac disease

As a result of this concern the British Cardiac Society set up a working group to examine this variation and their report has now been published.²

The working group included representatives from each of the four nations and focused on specific elements which were felt to be reflective of cardiac services generally. Thus waiting times for investigation and revascularisation, the number of cardiac surgeons, cardiologists and cardiac catheter laboratories, and the volumes of diagnostic coronary angiograms, coronary artery bypass grafting (CABG) and percutaneous coronary intervention (PCI) undertaken, were chosen as they were all both specific and measurable. An assessment of the aspirations of each service was also made by examining the extent to which newer technologies were implemented. This included the utilisation of drug eluting stents and the implantation rates of automatic implantable cardioverter-defibrillators (AICDs). Importantly, the report was underpinned by a comparison of the burden that CAD imposes on each of the four countries.

While such comparisons may appear straightforward at first glance, the report also illustrates

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the complexities of attempting to analyse these variations. How does one take account of consultant cardiologists or cardiac surgeons working whole time or part time in their specialty? Should activity undertaken in private institutions be included? How is cross border activity to be analysed in order to avoid double counting? To address these issues a number of assumptions were made and clearly outlined in the report.

DISCREPANCIES

The messages that emerge are clear and consistent. A greater burden of CAD, as measured by age standardised mortality, is apparent in the devolved nations in comparison with England. Despite this, Wales and Scotland fair less well than England or Northern Ireland, when measures of service provision are analysed. The number of catheter laboratories per head of the population is smaller in Scotland and Wales, which predictably perform fewer diagnostic angiograms with respect to the size of their populations. Waiting time targets, which also measure the aspirations of a service, are shown to range considerably. That for outpatient consultation varies from 13 weeks in England to a remarkable 18 months in Wales.³

Revascularisation rates also vary across nations with Wales performing the lowest number of PCI procedures. Cardiac surgical activity, as indicated by the number of CABG operations undertaken, is also lower in Wales in comparison with England and Scotland. Conversely, Northern Ireland performs proportionately least CABG procedures but the greatest volume of PCI. This is likely to relate to their having the lowest number of cardiac surgeons in post but the largest number of cardiologists. These differences also extend to the implementation of new technologies; drug eluting stent usage and new AICD implantation rates are lower in Scotland and Wales in comparison with England and Northern Ireland.

Perhaps of more concern is that these variations may not simply relate to resource availability. The application of services, and the mechanisms by which nationally generated recommendations are implemented, are not the same across the UK. The report describes each of

Abbreviations: AICD, automatic implantable cardioverter-defibrillator; CABG, coronary artery bypass grafting; CAD, coronary artery disease; MINAP, Myocardial Infarction Audit Project; NICE, National Institute for Health and Clinical Excellence; NSF, National Service Framework; PCI, percutaneous coronary intervention

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these processes and demonstrates their differences. So for example, guidance from NICE, which will have incorporated specialist contributions from all four countries, may still be reappraised before implementation in Scotland.

CONCERN

The report makes stark reading and confirms the perception of many observers that discrepancies exist. As the British Cardiac Society represents cardiologists across the whole of the UK, such findings are seen as unacceptable. It urges that when specialist societies and national agencies produce guidelines and recommendations, these are accepted in all devolved nations without the need for further modification. Similarly if European guidelines are embraced by UK organisations, these should also be acknowledged across all our nations, and implemented in an unaltered form. Individual assemblies and parliaments need to address the deficiencies that are apparent to ensure equal access to cardiac services across all of the UK.

The release of the report to ministers and national societies will no doubt prompt an early response, but we must remain vigilant. We need to ensure that implementation and funding of agreed guidelines and recommendations, such as those from NICE, are mandated in the devolved nations as well as in England. Lobbying of ministers and government agencies—perhaps through the media—should exert sustained pressure.

This review should not necessarily be seen as a damning indictment of differing cardiac services. Rather than represent simply a criticism of specific governments or assemblies, it should instead be welcomed as a catalyst for further joint discussion and action. Working with ministers and government agencies, we must continue to highlight persisting differences in national practice and maintain the focus of health departments upon areas of concern. Only in this way will all the citizens of the UK benefit equally from the many advances available to our patients with CAD. In order to monitor any progress a repeat review is planned next year.

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- 2 **Brooks N**, Norell M, Holl J, *et al*. National variations in the provision cardiac services in the United Kingdom. A report by a working group of the British Cardiac Society. *Br J Cardiol* 2005;**12**:192–8.
- 3 **Welsh Assembly Government**. Welsh Health Circular WHC (2003) 127. Annual priorities and planning guidance for the Service and Financial Framework 2004–5, Welsh Assembly Government, 19 December, 2003.

IMAGES IN CARDIOLOGY

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Multislice cardiac computed tomographic images of anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA)

A 54 year old man with no modifiable coronary risk factors presented with a 10 year history of insidious onset of progressive exertional dyspnoea. He denied history of paroxysmal nocturnal dyspnoea, orthopnoea, palpitations, syncope, oedema, or claudication. Clinical examination revealed a mesomorphic normotensive male with atrial fibrillation (AF), cardiomegaly, moderate mitral regurgitation (MR), mild tricuspid regurgitation (TR), and pulmonary arterial hypertension (PAH). A chest x ray (posteroanterior) view revealed cardiomegaly, while his ECG revealed left bundle branch block and AF. Echo Doppler evaluation revealed a dilated, globally hypokinetic left ventricle with an ejection fraction of 45%, moderate MR, PAH, and mild TR.

Multislice cardiac computed tomography (16 slices) revealed anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA) receiving collaterals from a normally originating dilated tortuous right coronary artery (panels). There were specks of coronary calcification, but no stenotic lesions. Coronary angiography confirmed the diagnosis and the patient underwent successful coronary artery bypass graft (CABG) surgery after closure of the ostium (in the main pulmonary artery) of the anomalously originating left coronary artery. Multislice cardiac computed tomography is thus a useful modality for diagnosing congenital coronary anomalies.

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