

small vessel disease.¹⁹ Finally, increased left ventricular mass may result not only from cell hypertrophy but also from increases in collagen, which may provide a substrate for malignant arrhythmias and sudden death.²⁰

Given the prognostic importance of left ventricular hypertrophy it seems appropriate to look for it in every patient at risk. As left ventricular mass is not closely related to casual blood pressure readings, we need to investigate patients with borderline as well as unequivocal hypertension.

Several management options exist when left ventricular hypertrophy is detected. We might apply the same aggressive treatment of coronary risk factors as after documented infarction because the risk of future cardiac events is about the same. We could initiate earlier investigation of such patients with routine nuclear imaging or stress echocardiography. Once it is found, we might treat coronary disease more aggressively than usual as even single vessel disease more than doubles mortality if associated with left ventricular hypertrophy.⁸ Or we could aim for regression of left ventricular hypertrophy as well as blood pressure control by choosing angiotensin converting enzyme inhibitors, non-dihydropyridine calcium channel β blockers, or blockers without intrinsic sympathomimetic activity. In patients with borderline hypertension, left ventricular hypertrophy argues the need for treatment.

Although all these approaches are intuitively sensible, and unlikely to do harm, none has yet been tested in this group of patients. We need research to guide management in these patients, but until the results are available it seems sensible to use left ventricular hypertrophy as a cue for tighter risk factor management, blood pressure control, and investigation for coexistent coronary artery disease.

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- 1 Savage DD, Drayer JJ, Henry WL, Matthews EC, Ware JH, Gardin JM, *et al*. Echocardiographic assessment of cardiac anatomy and function in hypertensive subjects. *Circulation* 1979;64:623-31.
- 2 Hammond IW, Devereux RB, Alderman MH, Lutas EM, Spitzer MC, Crowley JS, *et al*. The prevalence and correlates of echocardiographic left ventricular hypertrophy among employed patients with uncomplicated hypertension. *J Am Coll Cardiol* 1988;7:639-50.
- 3 Casale PN, Devereux RB, Milner M, Zullo G, Harshfield GA, Pickering T, *et al*. Value of echocardiographic measurement of left ventricular mass in predicting cardiovascular morbid events in hypertensive men. *Ann Intern Med* 1986;105:173-8.
- 4 Koren MJ, Devereux RB, Casale PN, Savage DD, Laragh JH. Relation of left ventricular mass and geometry to morbidity and mortality in uncomplicated essential hypertension. *Ann Intern Med* 1991;114:345-52.
- 5 Levy D, Garrison RJ, Savage DD, Kannel WB, Castelli WP. Left ventricular mass and incidence of coronary heart disease in an elderly cohort. The Framingham study. *Ann Intern Med* 1989;110:101-7.
- 6 Levy D, Garrison RJ, Savage DD, Kannel WB, Castelli WP. Prognostic implications of echocardiographically determined left ventricular mass in the Framingham heart study. *N Engl J Med* 1990;322:1561-6.
- 7 Kannel WB. Prevalence and natural history of electrocardiographic left ventricular hypertrophy. *Am J Med* 1983;(suppl 3A):4-11.
- 8 Liao Y, Cooper RS, McGee DL, Mensah GA, Ghali JK. The relative effects of left ventricular hypertrophy, coronary artery disease, and left ventricular dysfunction on survival among black adults. *JAMA* 1995;273:1592-7.
- 9 Bolognese L, Dellavesa P, Rossi L, Saraso G, Bongo AS, Scianaro M. Prognostic value of left ventricular mass in uncomplicated acute myocardial infarction and one-vessel coronary artery disease. *Am J Cardiol* 1994;73:1-5.
- 10 Boden WE, Kleiger RE, Schechtman KB, Capone RJ, Schwartz DJ, Gibson RS. Clinical significance and prognostic importance of left ventricular hypertrophy in non-Q wave acute myocardial infarction. *Am J Cardiol* 1988;62:1000-4.
- 11 Devereux RB, Reichek NR. Echocardiographic determination of left ventricular mass in man: anatomic validation of the method. *Circulation* 1977;55:613-8.
- 12 Reichek N, Helak J, Plappert T, St John Sutton M, Weber KT. Anatomic validation of left ventricular mass estimates from clinical two-dimensional echocardiography: initial results. *Circulation* 1983;67:348-52.
- 13 Rowlands DB, Glover DR, Ireland MA, McLeay RAB, Stallard TJ, Watson RDS, *et al*. Assessment of left-ventricular mass and its response to antihypertensive treatment. *Lancet* 1987;i:467-70.
- 14 Lauer MS, Anderson KM, Levy D. Influence of contemporary versus 30-year blood pressure levels on left ventricular mass and geometry: the Framingham heart study. *J Am Coll Cardiol* 1991;18:1287-94.
- 15 Evans AE, Poirier O, Kee F, Lecerf L, McCrum E, Falconer T, *et al*. Polymorphisms of the angiotensin-converting-enzyme gene in subjects who died from coronary heart disease. *Q J Med* 1994;87:211-4.
- 16 Cambien F, Poirier O, Lecerf L, Evans A, Cambou J-P, Arveiler D, *et al*. Deletion polymorphism in the angiotensin converting enzyme gene is a potent risk factor for myocardial infarction. *Nature* 1992;359:641-4.
- 17 Katsuya T, Koike G, Yee TW, Sharpe N, Jackson R, Norton R, *et al*. Association of angiotensinogen gene T235 variant with increased risk of coronary heart disease. *Lancet* 1995;345:1600-3.
- 18 Fujita M, Mikuniya A, McKown DP, McKown MD, Franklin D. Regional myocardial volume alterations induced by brief repeated coronary occlusion in conscious dogs. *J Am Coll Cardiol* 1988;12:1048-53.
- 19 Harrison DG, Marcus ML, Dellsperger KC, Lamping KG, Tomanek RJ. Pathophysiology of myocardial perfusion in hypertension. *Circulation* 1991;83(suppl III):III14-8.
- 20 McLennan JM, Henderson E, Morris KI, Dargie HJ. Ventricular arrhythmias in patients with hypertensive left ventricular hypertrophy. *N Engl J Med* 1987;317:787-92.

What's happening to nursing?

The traditional division of labour between nurses and doctors is changing

See pp 280, 303, 309, 325, 338

British nursing has notched up many successes in the past decade. Nursing practice, underpinned by radical reform of nursing education, has shifted from a task centred approach towards personalised care; other innovations have improved the quality of care; and research and critical thinking are flourishing. It is an impressive record.

Against this backdrop, understanding why Christine Hancock, that most lucid and reasonable of union leaders, should find herself leading the Royal College of Nursing in an assault on the government may be difficult. Yet, far from feeling buoyed up by their recent achievements, nurses are experiencing what Carpenter calls "a much deeper sense of betrayal than the difference between 1% and 3% in pay (p 338)."¹ Something has gone badly wrong. While nurses' concern over pay is real, it has also acted as a trigger for their discontent over the state of the profession and the state of the NHS itself.

This week's articles on nursing provide clues to understanding this paradox (pp 338, 303, 309).¹⁻³ Many of the issues are not new: Davies's important new book⁴ (reviewed by Carpenter¹ echoes some of the conclusions of earlier analyses.⁵ The central predicament of nursing as a woman's occupation

in a man's world remains unresolved, while the traditional marginalisation of nursing by medicine and governments continues. These chronic problems have been compounded by the new market culture of the NHS, which leaves nurses wondering whether altruism, compassion, and social justice—the values nursing espouses at its best—have any place in the new world of balance sheets and short term contracts.

The marginalisation not only of nursing but of the values it traditionally represents underlies the confusion and grief felt by many doctors and nurses. Bradshaw and Short, from different perspectives, deplore the apparent demise of tender loving care.² Their reasoning may be shaky and imbued with nostalgia for a mythical golden age, but many share their feelings. In particular, nurses are desperately trying to maintain their traditional values while finding a place in the new order, in which they are still relatively powerless. This struggle creates dilemmas that epitomise the tensions arising from unpopular NHS reforms.

Nursing work is undervalued partly because of doctors' ignorance about it. "Twas ever thus, but the rules of the game are changing.⁶ Today's nurses are increasingly likely to be assertive and well educated, while the doctors who symbolise

their traditional oppressors are less certain of their ground; consumerism, general management, and politicians have all undermined doctors' authority. This variant of the game adds a new dimension to the debate about the interface between medicine and nursing. Moreover, the distinction between "cure" and "care" seems increasingly simplistic in the light of new knowledge about what makes people better or more able to cope with long term disease or disability and about what protects them from illness. These challenges to the traditional division of labour are being reinforced by pragmatic considerations such as reducing junior doctors' hours. One outcome is the formalisation of what happens informally anyway: nurses doing doctors' work.³ But where will it all end?

The Bristol team's investigations of shifting role boundaries are timely. Based on research rather than reminiscence, their latest study highlights two main directions in which these developments could lead.³ The first, substitution of doctors by nurses,⁷ is a short term response to medical staffing problems but an undesirable alternative to putting medicine's own house in order. The second is far more promising: expert nurses complementing but not substituting for expert doctors, and together providing a better service to patients.

This was Lempp's experience as a primary health care nursing specialist,² in a service based not on internecine squabbles over professional territory but on what patients,

clients, and their families needed and wanted. It may be unfashionable, but Lempp's call for multidisciplinary training is crucial. Nursing and medicine share a common core of knowledge and skills: could these not be taught to medical and nursing students together, thus diminishing the professional barriers that are usually firmly erected by the time of graduation? Learning together enhances mutual understanding, based on knowledge of people rather than stereotypes. Token efforts that leave the structural inequalities of sex and hierarchy untouched will achieve little, but a radical approach could do much. The next step, involving patients and carers in the learning process, might help destroy those professional barriers for ever.

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1 Carpenter M. Gender and the professional predicament in nursing. [Book review.] *BMJ* 1995;311:000.

2 Short JA, Bradshaw A, Nolan M, Lempp H. Has nursing lost its way? *BMJ* 1995;311:303-8.

3 Dowling S, Barrett S, West R. With nurse practitioners, who needs house officers? *BMJ* 1995;311:309-13.

4 Davies C. *Gender and the professional predicament in nursing*. Milton Keynes: Open University Press, 1995.

5 Salvage J. *The politics of nursing*. London: Heinemann, 1985.

6 Stein L. The doctor-nurse game revisited. *N Engl J Med* 1990;322:546-9.

7 Wilson S. Report queries savings with the doctor-nurse shift. *BMJ* 1995;311:280.

Science and Technology Committee's report on genetics

Recommends an official regulatory body and serves notice on insurers

For the first time the British parliament has examined the present state and future possibilities of human genetics and has begun to face up to some of the important implications of and difficult decisions arising from this specialty. Previously, it had left the task to charitable bodies such as the Nuffield Council on Bioethics, whose report in December 1993 identified many of the key issues.¹ But the report's call for government action had until recently met with little response. Now the all party Science and Technology Committee of the House of Commons has taken up the challenge and has done so thoroughly and firmly.

Human Genetics: the Science and its Consequences has taken a broad remit, covering such topics as basic genome research, its industrial and economic consequences, patenting, and the role of the research councils, in addition to the more medical aspects that primarily concern doctors.^{2,3} It makes the valuable point that success in all these areas depends critically on the population being informed and educated in basic concepts of genetics. This applies equally to school students as it does medical undergraduates.

The report concentrates on several aspects of public and professional concern—for example, extension of genetic screening to common diseases, privacy of information, the limits of prenatal diagnosis and termination of pregnancy, and discrimination in relation to insurance and employment. On all these topics its conclusions are broadly similar to those of the earlier Nuffield report. But it goes a step further and firmly grasps the nettle in a way that none has done before: it recommends the formation of an official regulatory body, the Human Genetics Commission, with statutory powers to implement its decisions. Wisely it suggests that this body should have a majority of lay members, reflecting the view

that human genetics is too important to society to be determined solely by "experts."

The report is very specific in some of its recommendations. Genetic screening should not be extended without clear evidence of benefit to those concerned, and must be accompanied by adequate information, counselling, and support. Commercially driven screening is to be avoided—the recent "over the counter" screening for cystic fibrosis is criticised, and extension of this to other disorders recommended against. Perhaps the sharpest criticism of the report is reserved for the insurance industry in relation to the use of information from genetic tests, this criticism being especially evident in the detailed supporting evidence. The report considers that the industry has shown "undue complacency" in its use of test results and recommends that it "should be allowed one year in which to propose a solution acceptable to Parliament," with legislation if this fails to occur.

Dismemberment

The report also considers the development of genetics services, broadly supporting the strengthening and progress of the regional network of clinical and laboratory genetic services that has developed over the past 20 years. It specifically recommends the protection of these specialised services in the face of changes in the NHS, and in particular that they should not be fragmented or devolved to fundholding general practitioners. Ironically, though the health departments' statement to the committee echoed this view, wholesale dismemberment of these very services has been proceeding apace, with genetics services being included in new lists of items to be devolved to fundholding general practitioners at