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Association between practice size and quality of care of patients with ischaemic heart disease: cross sectional study

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Proportionally fewer inpatients die in hospitals that do more operations than in hospitals that do fewer.[1] Similar associations between outcome and the size of hospitals have been found in other studies. An association between size and outcome may also be important in primary care settings, where most patients with chronic illnesses are managed. If large practices or those that treat more people provide better care, this could have important implications for the organisation of primary care services. We looked for an association in patients with ischaemic heart disease because the management of this disease is an international priority.[2]

Participants, methods, and results

From September 2000 to May 2001, we identified patients diagnosed as having ischaemic heart disease using paper and computerised medical records in four primary care groups in southwest London (69 general practices; population 382 188). Seven general practices did not take part.[3]

We recorded patients as hypertensive if their blood pressure was more than 140/85 mm Hg. We classed cholesterol concentrations greater than 5 mmol/l as high and defined patients with a body mass index (weight (kg)/height (m^2)) of 30 or greater as obese. We extracted information on treatment with cardiovascular drugs from computerised records. Fifteen practices were unable to supply some data and were excluded from some of the analyses.

We calculated the proportion of patients in each practice whose risk factors were assessed or controlled; who were taking aspirin, statins, β blockers, or angiotensin converting enzyme inhibitors; or who had had revascularisation treatment. To examine the association of practice size and volume of cases with quality of care, we used a logistic population averaged generalised estimating equation model, adjusted for age and sex, that allowed for clustering within practices.

Practice size varied from 1265 to 13 147 patients (mean 5762). In total, 6888 people had ischaemic heart disease; the number of cases in individual practices varied from 12 to 326 (mean 111) and prevalence varied from 0.45% to 4.37% (mean 1.96%).

Only records of cholesterol concentrations showed an improvement with increasing number of cases of ischaemic heart disease. An increase of 10 in the number of cases was associated with a 6% increase in the odds of recording (table). On average, a practice with 200 patients with ischaemic heart disease would have recorded cholesterol concentrations for 69% of patients registered with the practice compared with 56% in a practice with 100 cases.

Comment

Most aspects of the management of ischaemic heart disease in primary care were not associated with the number of cases managed. We also found no association between practice size and the quality of care. This suggests that the trend in the NHS towards larger general practices by itself has little impact on the quality of chronic disease management in primary care.

Although recent developments in the NHS have cast doubt on the future of smaller practices, both patients and the doctors seem happy with smaller practices. Smaller practices are seen as more accessible and achieve higher levels of patient satisfaction.[4 5] The NHS should reconsider how it can improve the quality of care provided by general practices, without relying on the presumed benefits of consolidating them into

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Univariate associations between number of cases (adjusted for practice size) and practice size and management of ischaemic heart disease in 62 general practices, southwest London, September 2000 to May 2001

	No of cases		Practice size	
Variable	Odds ratio (95% CI)*	P value	Odds ratio (95% CI)*	P value
Blood pressure recorded	1.01 (0.97 to 1.06)	0.58	1.04 (0.95 to 1.14)	0.36
Blood pressure optimal	1.01 (1.00 to 1.02)	0.18	0.99 (0.96 to 1.02)	0.63
Cholesterol recorded	1.06 (1.03 to 1.10)	0.001	1.05 (0.98 to 1.13)	0.18
Cholesterol optimal	1.01 (1.00 to 1.03)	0.06	1.02 (0.99 to 1.05)	0.21
Body mass index recorded†	1.07 (0.96 to 1.19)	0.22	1.04 (0.95 to 1.14)	0.36
Body mass index optimal†	0.99 (0.98 to 1.01)	0.45	0.99 (0.97 to 1.02)	0.51
Prescribed statin	1.00 (0.99 to 1.01)	0.85	1.03 (1.00 to 1.05)	0.08
Prescribed aspirin	0.99 (0.97 to 1.01)	0.17	1.01 (0.97 to 1.05)	0.53
Prescribed β blocker†	0.96 (0.90 to 1.03)	0.23	1.06 (0.96 to 1.16)	0.28
Prescribed angiotensin converting enzyme inhibitor†	0.93 (0.87 to 0.99)	0.02	1.05 (0.96 to 1.16)	0.27
Revascularisation†	0.98 (0.96 to 1.01)	0.14	1.02 (0.97 to 1.06)	0.49

*Odds ratios are adjusted for age and sex, and are per 10 patients for number of cases and per 1000 patients for practice size.
†15 practices could not supply data and were excluded.

larger units. Other initiatives—for example, the use of disease facilitators, local incentive schemes, expansion in specialist services, and the development of general practitioners with special interests—need to be evaluated to see if they can achieve this objective.

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My most unfortunate mistake

Courtesy towards NHS staff is a must

I had just started as a new medical house officer in an eminent teaching hospital on the south coast of England, having recently completed my surgical job. Like all new doctors, I spent the first few days finding my way around the wards and getting to know the routine. I was booming with enthusiasm and confidence and was somewhat arrogant. The job certainly was not easy. A typical day consisted of an endless ward round, and during on-calls we would be lucky to have a few minutes to ourselves. On a typical post-take ward round we saw more than 20 new admissions, and, with an on-call commitment of one in four, we were always on the go.

I was initially taken aback by the enormity of the workload in a new environment, and my initiation was not made easier by being on call on the first day as well as the first weekend. Junior doctors can react to such situations in many ways. My response was to be uncharacteristically arrogant, patronising, and even occasionally rude, and, as a new face in the hospital, I made a lot enemies very fast. I was surprised by how quickly most of the staff, including nurses and medical staff, realised that I was a potential troublemaker and someone who needed to be watched. This led to a flood of informal complaints to my consultant, so that, within days of my starting, he summoned me and told me that I was the worst house officer he had ever had. The combination of workload and friction with other staff reached such a level that, by the end of my second week, having worked non-stop for 10 days and done four on-calls, I was considering resigning. I was exhausted, frightened, and very bitter, feeling that I had been treated as a scapegoat.

After a relaxing weekend, however, I pulled my strength and my wits together and, after some thought, realised how wrong I had been. The words of my senior house officer kept echoing in my mind. He had warned me about how important it was to establish good rapport with the other staff and thereby get them on my side. I turned up to work on time on the following Monday and managed to partially redeem myself within a few weeks. Unfortunately, the damage had been done and, as first impressions last, even with all my good intentions I could not totally clear my name.

The most important lesson I learnt is the fundamental importance of dealing diplomatically with colleagues. Working in the NHS is demanding and highly stressful for everyone, and, by being polite and courteous, even if others are treating you differently, you can make a lot of difference. You then will realise that you become more efficient, as you can flourish in a pleasant multidisciplinary environment where all can function, attain their full potential, and best serve the patients' interests.

And here is something for senior NHS staff who have to deal with new house officers every six months. Please realise how much pressure they are under at the start of their careers; their arrogance and even discourtesy may just be part of their coping mechanism. It may be better if you gently habituate them into their new role instead of reacting defensively and ripping them apart.

Cyrus Abbasian

We welcome articles up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake,* or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.