Survey of equipment in general practice

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Abstract

Partners in general practice have to buy any equipment they want themselves. As a result partners in high investing practices have lower net incomes. Of the 297 practices in Devon and Cornwall, 265 responded to a questionnaire listing 115 possible items of practice equipment. Overall, practices seemed to be fairly well equipped. Key findings were that 193 of those who responded had an electrocardiograph, 206 had a kit for minor operations, 119 owned a computer, and less than one third owned a microscope. Most of these practices were high investors.

There seems to be a shift away from some traditional instruments towards expensive information technology. Government policies are encouraging the use of computers and such equipment, though funds are not necessarily being made available for this purpose.

Introduction

One of the features of general practitioners being self employed is that they buy and own their equipment: they invest in capital. Return on investment is axiomatic to most businesses, but the business of general practice, by virtue of its structure, does not generate a return on investment. "There is no financial incentive for them to raise the level of care offered nor to take on themselves something for which they could reasonably refer the patient to hospital. Spending on equipment effectively comes out of their own pockets," stated a report from a Cabinet Office Advisory Council, referring to general practitioners.¹

There is a differential response to professional and

economic incentives, and general practitioners who make a high level of investment in their practices achieve lower net incomes than low investors.² High investors are usually in more affluent areas and have larger partnerships with younger partners.

The response of the General Medical Services Committee to the government's green paper³ stated that "new resources are required to fund development" and "doctors who provide a higher than average level of service continue to suffer financially. Further development to the range of direct reimbursements . . . will ensure that . . . incentives match current objectives."⁴ The response of the Royal College of General Practitioners to the same green paper concluded that general practitioners "must provide a wide range of services. To do this practices will need to be properly equipped . . . investment for new resources will undoubtedly be required."⁵ Despite this the government's white paper did not address the issue of equipment in practices.⁶

A working party set up between local medical committees and the Royal College of General Practitioners saw a gap in this debate about equipment, investment, and funding and studied the range and amount of equipment in general medical practice.

Subjects and methods

Our joint working party sent a printed questionnaire with a covering letter to every general practitioner in Devon and Cornwall in November 1987 by using the family practitioner committees' courier services. Completed questionnaires were returned by either post or courier service to a practice in Exeter for doctors in Devon or a practice in Bodmin for doctors in Cornwall.

TABLE 1—Number of practices in Devon and Cornwall having specific items of medical equipment

Item of equipment	No having this item (n=265)	Item of equipment	No having this item (n=265)	Item of equipment	No having this item (n=265)
Adult stethoscope	265	Low reading mercury thermometer	220	Paediatric sphygmomanometer cuff	148
Auriscopes		Mydriatic eye drops	217	Manual typewriter	138
Polythene gloves		Local anaesthetic eye drops		Oxygen	122
Protein and sugar urine analysis sticks		Secure container for dangerous drugs		Boiler steriliser	
Standard sphygmomanometer cuff		Baby scales	215	Electrocautery equipment	116
Ophthalmoscope	262	Waiting room toys		Geudal airway	106
Normal mercury thermometer		Colour vision cards		Manual nebuliser	103
Visual acuity charts		Large sphygmomanometer cuff	212	Autoclave steriliser	101
Adult peak flow meter	257	Fitting kit for intrauterine contraceptive devices		Car roof flashing light	98
Cusco speculum		Kit for minor operations	206	Glucometer	95
Manual ear syringe		Consulting room toys	204	Head mirror for ear, nose, and throat examinations	87
Mercury sphygmomanometer	254	Electrocardiograph	193	Microscope	82
Height measure		Set of instructional diaphragms		Liquid nitrogen equipment	58
Fluorescein eye stain	252	Intravenous fluid and giving set	186	Headlight for ear, nose, and throat examinations	56
Urine analysis multisticks		Electric nebuliser	183	Audiometer	
Blood sugar sticks	246	Nasal forceps and ribbon gauze	178	Adjustable manipulation couch	53
Magnifying glass		Space blanket	172	Hot air steriliser	50
Aneroid sphygmomanometer	239	Resuscitation kit	167	Vitalograph	40
Bathroom scales	236	Bar scales		Centrifuge	
Fetal stethoscope		Simms vaginal speculum	164	Defibrillator	29
Hearing tuning fork	227	Ambu bag	159	Sigmoidoscope	
Brook airway		Laryngoscope and tubes	156	Colonoscope	8
Vibration tuning fork	225	Sonicaid			
Proctoscope	223				

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TABLE II—Number of practices in Devon and Cornwall having specific items of information technology

Item of equipment	No having this item (n = 265)
Tape recorder	233
Calculator	227
Radio pager	220
Answerphone	186
Electric typewriter	162
Photocopier	151
Computer	119
Word processing equipment	106

During December 1987 and January and February 1988 up to three reminders were sent to non-responding doctors.

The questionnaire listed 115 possible items of equipment in the practice and asked whether the doctor owned or had access to the item in the practice. Doctors also indicated whether they considered the item to be essential, desirable, luxurious, or superfluous in their daily work. This will be the subject of a separate analysis. Questionnaires carried a confidential code for practice and partner. Replies were anonymous. The two code lists, each held by a secretary who never had access to the returned questionnaires, were destroyed before analysis. Members of the working party analysed the replies manually.

Results

Of the 297 practices in Devon and Cornwall, 277 replied. Twelve replies could not be analysed, giving a total of 265. Table I shows the distribution of medical equipment among the practices, and table II gives similar data for information technology. A breakdown of replies to the question on computers showed that 119 practices were using 24 types of hardware and 23 types of software.

Discussion

As we expected, every practice had such basic items as a stethoscope and auriscope whereas few owned, for example, a colonoscope. Over three quarters had instruments for minor operations, and 183 had an electric nebuliser. Almost all the practices had fluorescein eye stain, and 217 had mydriatic and local anaesthetic eye drops. Bosanquet suggested that possessing an electrocardiograph is a sensitive indicator of a high investing practice and that high investment usually accompanies other features that might indicate a concern with quality.² Almost three quarters of these practices had an electrocardiograph in the surgery. Nearly all of them offered a range of contraceptive services, including the fitting of intrauterine contraceptive devices and diaphragms.

Can we gauge from these results how well or poorly equipped these practices are? Is it adequate, for example, for over half the practices to be without oxygen, one third of them without a resuscitation kit, or one fifth without a secure container for drugs? The fact is that there is little received wisdom on this. The statement of fees and allowances for general medical services does not lay down what equipment should be held. But there are minimum standards of equipment recommended for training practices⁷ and by the Royal College of General Practitioners for fellowship of the college by assessment.⁸ The equipment required of trainers and candidates for college fellowship are similar: on visits a stethoscope, auriscope, ophthalmoscope, peak flow meter, sphygmomanometer, gloves, blood glucose sticks, low recording thermometer, and specimen collecting equipment are required; in the surgery the above are required plus height and weight scales, visual acuity charts, proctoscope, vaginal speculum, electrocardiograph, and autoclave. By these criteria, which at least form a benchmark for those practices actively aiming at more rigorous standards, doctors in Devon and Cornwall are fairly well equipped.

One of the few pieces of equipment mentioned in the government's new contract, *General Practice in the National Health Service*, is a computer.⁹ Information technology is now a huge issue for general practitioners, and our study shows that radiopagers, answerphones, photocopiers, electric typewriters, word processors,

and computers are already commonplace in surgeries. Our results show that a wide variety of computer hardware and software is used. If general practice is to make the most of computerisation and tackle the care of populations computer systems and records urgently need to become standardised and interchangeable.

We saw a contrast between the large number of practices investing in information technology and the small number still using instruments like microscopes and head mirrors for ear, nose, and throat examinations. Most important clinical equipment, except for electrocardiographs, is fairly cheap. In contrast, computers, photocopiers, and word processors are expensive to buy, run, and replace. The cost, therefore, to a practice that keeps up with modern developments is greater now than ever before.

Theoretically, money spent on practice expenses, including equipment, is reimbursed through the review body mechanism. Each year an anonymous random sample of doctors is obtained and their tax returns scrutinised. The expense factor for every general practitioner in the country is calculated from the average from this sample. Precisely because this system applies an average expense factor all low investing general practitioners benefit and all high investing general practitioners suffer financially. This creates an inherent disincentive to spend money on equipment.

The new contract's paragraph on computers states that "additional resources will be made available for such developments. . . . The Health Departments have discussed computer issues arising from the Primary Care White Paper only briefly with the GMSC negotiators but, in the light of the Government's more recent and wider proposals for information technology in general practice, discussion will be pursued with the profession and the computer suppliers . . . the Health Departments will be undertaking a survey of GP practices shortly to identify IT development needs."⁹

It remains to be seen whether money will be made available for developing information technology in general practice. It also remains to be seen how competition for patients between practices, which is an aim of the new contract and the white paper *Working for Patients*,¹⁰ will influence general practitioners' policies on buying equipment. Competition will be unlikely to have the effect of improving the standards of poorly equipped small practices with dwindling list sizes. Yet this is precisely where government money and intervention might best be targeted.

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