to "publish or perish," regardless of the quality of the research, still has too much truth in it for doctors to try to claim the moral high ground.

We—a doctor-nurse team—share nursing, medical, and teaching postgraduate qualifications. We condemn poor research and undisciplined thinking, wherever it is found.

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- 2 Hay RL. A nurse's place is at the bedside. *BMJ* 1995;311:325. (29 July.)
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Nurses' role is narrowing in Germany

EDITOR,—We were interested to read of the progress that British nurses believe is being achieved in patients' care and research and, in particular, that nurses are keen to undertake new roles previously the job of doctors.¹ In Germany the tendency over the past few years has been the reverse. Whereas a considerable proportion of German nurses, especially in larger hospitals, previously incorporated taking blood, inserting catheters, and giving antibiotics and blood products into their daily duties, they are now unwilling to take on these additional roles. Organising patients' appointments and investigations is not considered to be their responsibility. In addition, nurses are now reluctant to dress wounds and remove stitches, even on surgical wards. These jobs have to be delegated to final year students, who spend their time doing whatever the nurses believe is not their job. In other words, the shrinking duties of nurses mean that the education of our student doctors is suffering.

There is also evidence that continuing education of nurses, even on specialised wards, is gradually diminishing, such that, for example, those on cardiology wards cannot or do not want to interpret electrocardiograms. When information is required by relatives, nurses seem not to feel confident about relaying details about the patient's condition and are therefore unable to reassure those who are anxious about the patient. This is partly because they are increasingly unwilling to accompany doctors on ward rounds and therefore do not receive up to date information.

The developing situation leads us to wonder what the role of nursing has become in Germany. Are nurses now just to give out tablets and make beds, or, as seems already to have occurred in Britain, will there eventually be a move to upgrade their status by some nurses who are motivated and wish to be regarded as professional patient carers?

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Nursing eulogies ignored ethos of control and punishment

EDITOR,—Several recent articles indicate how nurses view themselves.¹⁻³ Discussion with medical colleagues has shown that none of them recognise the nursing described. The articles repeat clichés and myths for which there is no evidence.

Firstly, nurses have never been handmaidens to doctors. Many employees in all walks of life carry out instructions given by other employees. That does not make any of the former handmaidens to the latter.

Secondly, power often does not lie with doctors. Many routines and policies in wards, labour suites, theatres, and clinics are instigated and maintained by nursing staff. Nurses have considerable power, which, unfortunately, many readily use in a negative and unassertive way.⁴ Suggestions about different practices and attitudes are often met with hostility and resistance and sometimes with vindictive behaviour.

Thirdly, doctors are accused of not knowing what nurses do. The converse is more accurate. Many nurses, even experienced ones, do not realise that when they go home the doctors often do not. My efforts to explain to nurses that a doctor's behaviour may be influenced by the fact that he or she works at least twice the hours in a week that they do (as well as carrying considerably more responsibility for more patients in several parts of the hospital) have been met with disbelief, sarcasm, and facetious comments—hardly the quintessence of a caring profession.

My experience of teaching on numerous training courses for nurses and health visitors and from discussions with nursing colleagues is that derogatory and defamatory comments about doctors in general or about specific doctors seem to be part of nursing culture from the earliest days of training. The participation of senior nurse managers in this and their reluctance to challenge it perpetuates this unsafe and unprofessional behaviour.

Nursing does not acknowledge that issues are often not black and white, that there is often not a right or wrong answer, and that making decisions will mean making wrong ones. Rather, there is an ethos of control and punishment, whether of colleagues, other health professionals, or patients whose actions and decisions do not conform to expectations.

Nurses do not have a monopoly on a caring, holistic approach to patients and their families, and most doctors are not oppressive technocrats who see patients only as a collection of symptoms. Many doctors carry a burden of guilt, doubt, and an excessive sense of responsibility,⁵ which is largely unrecognised. Being aware of their failings, doctors allow unfair and ill informed comments on their profession and pomposity by others in the health field to go unchallenged. The articles on nursing, written mostly by nurses, are self eulogising.¹⁻³ Unless doctors start being proactive in promoting what they do and reactive in response to the comments of others, they will have no one to blame but themselves if their standing in the health field falls.

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Macintosh PC is better than Windows

EDITOR,—To read the articles by Nicholas Lee and Andrew Millman on choosing and installing software,¹ you might think that there is only one type of computer and two types of software. They refer to either DOS or Windows operating systems based on IBM compatible PCs. In doing this they ignore an important area of the market, which is

particularly important for those who are just starting their computing careers.

Macintosh computers that have major advantages over IBM-PC compatible computers have been available for several years. The graphical user interface on the Macintosh was a major advance over the DOS system. This was acknowledged by the development of the Windows software, which uses a graphical user interface but does not perform as well as the latest Macintosh interfaces. Newcomers to the world of computing would be best served by at least being informed of the availability and benefits of using the Macintosh interface. In a comparison of DOS and Windows with the Macintosh the advantages of the Macintosh are

- A more attractive and user friendly graphical user interface than Windows
- A more consistent feel and look to the programs
- As with Windows, a WYSIWYG screen
- Software that has long been able to show colour pictures and colour text or black and white text simultaneously
- Many programs can run simultaneously
- Moving between programs is even easier than with Windows.

Connection to other Macintosh systems, the Internet, and other peripherals is extremely easy and is easier, in my experience, than with Windows. The disadvantage that Lee and Millman relate of Windows being more liable to crash is not a great problem with Macintosh based software. Although no doubt Macintosh software can crash, in my experience using several Macintosh computers and a wide variety of software over the past five years, crashes are extremely rare.

Though Macintosh computers have been more expensive than IBM-PC compatibles, the costs have recently dropped considerably, as have the costs of the associated software. Extensive software is available for Macintoshes, and with the recent licensing of the Macintosh operating system to non-Macintosh manufacturers, hardware costs are likely to fall even more.

Anyone looking into acquiring a new computer system, particularly those who are not already experienced in computer matters, should investigate Macintosh as an alternative to IBM-PC compatible computers.

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- 1 Lee N, Millman A. Choosing and installing software. *BMJ* 1995;311:179-82. (15 July.)

Software package makes counting episodes easier

EDITOR,—I agree with the comments made by the Radical Statistics Health Group concerning the lack of data on the number of people treated by the NHS compared with data on the number of finished consultant episodes.¹ I have recently undertaken several studies to try to determine the causes of the increased number of emergency admissions in the NHS. Counting the number of people treated is a prerequisite for this, and the simple trick that I devised to enable this to be done from data on episodes may therefore be of interest to others. In the data on episodes every record contains a date of birth and a unit postcode. The probability of two people having the same date of birth and unit postcode is effectively zero. It is therefore possible to "identify" people by using this trick and to count them and the number of episodes that apply to each of them. Thus a good

deal of historical analysis can be undertaken while the introduction of the new NHS patient numbering system, which will solve the problem, is awaited.

The software to achieve this is fairly straightforward, and I will provide a copy of it to anyone who is interested.

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1 Radical Statistics Health Group. NHS "indicators of success": what do they tell us? *BMJ* 1995;310:1045-50. (22 April.)

Incidence of gastrointestinal bleeding in Italy is similar to that in Britain

EDITOR,—I was interested in the paper on the audit of acute upper gastrointestinal haemorrhage in the United Kingdom.¹ As current knowledge of the epidemiology of acute upper gastrointestinal haemorrhage comes from English speaking countries, I wish to draw attention to the results of a prospective, population based survey conducted in the Treviso area (north east Italy) a decade ago.² Treviso hospital is a general hospital with 1264 beds serving a population of about 270 000 inhabitants (232 000 aged over 15). During 27 months, from 1 October 1983 to 31 December 1985, 526 emergency admissions for acute upper gastrointestinal haemorrhage were recorded, while bleeding occurred in 61 patients already in hospital.

The table compares some of the findings of our unselected study with those of T A Rockall and colleagues. There are impressive similarities in the

Comparison between two studies on acute upper gastrointestinal haemorrhage. Figures are numbers (percentage) of patients

	Rockall and colleagues ¹	Loperfido et al ²
Year	1993	1983-5
Adult population	12 500 000	232 000
No of cases	4185	587
Mean age (years)	66	61
Haemorrhage in inpatients	584 (14)	61 (10)
Peptic ulcer	1448/4137 (35)	347/587 (59)
Varices	180/4137 (4)	81/587 (14)
Negative diagnosis	1014/4137 (25)	28/587 (5)
Overall incidence (No/100 000/year)	103	112
Mortality in emergency admissions	365/3473 (11)	68/526 (13)
Mortality in inpatients	191/578 (33)	23/61 (38)

overall incidence of acute upper gastrointestinal haemorrhage, proportion of cases of bleeding occurring in inpatients, and mortality. On the other hand, the distribution of sources of bleeding differs between the two populations investigated, the main difference concerning the high proportion of cases of bleeding in which the cause was undetermined in the English series (25% v 5% in our study). Since digestive endoscopy for acute upper gastrointestinal haemorrhage seems to have become routine, the finding that a quarter of the sources of bleeding were undiagnosed in the English series is surprising, even when we take into account that cases of bleeding of undetermined cause carried a high mortality (20%) and included similar proportions of emergency admissions and cases of haemorrhage in inpatients. The design of the large English study, involving 74 hospitals, and the advanced age of most of the patients may help to explain this peculiarity. Nevertheless, data on the performance of emergency endoscopy and on variability among areas might be an important clue.

Overall mortality in patients admitted after the onset of acute upper gastrointestinal haemor-

rhage outside hospital fell in our area from 12.9% (68/526) in 1983-5 to 3.8% (10/262) in 1993, and, specifically, mortality from bleeding oesophagogastric varices fell from 43% (35/81) to 11% (4/38) and mortality from bleeding peptic ulcer from 7.3% (23/313) to 1.3% (2/158). On the other hand, our experience agrees with the common one that the prognosis of upper gastrointestinal haemorrhage in inpatients, a very high risk group, is still poor.³

One question arising from the findings of the English series is how to transfer the advances in terms of improved outcome that have been achieved (at least for emergency admissions) at specialised centres into general hospital practice, even if the proportion of elderly patients continues to increase everywhere.

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1 Rockall TA, Logan RFA, Devlin HB, Northfield TC, on behalf of the steering committee and members of the national audit of acute upper gastrointestinal haemorrhage. Incidence of and mortality from acute upper gastrointestinal haemorrhage in the United Kingdom. *BMJ* 1995;311:222-6. (22 July.)

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3 Loperfido S, Monica F, Maifreni L, Paccagnella A, Famà R, Dal Pos R, et al. Bleeding peptic ulcer occurring in hospitalized patients: analysis of predictive and risk factors and comparison with out-of-hospital onset of hemorrhage. *Dig Dis Sci* 1994;39: 698-705.

Vitamin D receptor genotype and bone mineral density

Evidence conflicts on link

EDITOR,—Two linkage studies of vitamin D receptor genotype and bone mineral density have reported different results. In Australian twins the vitamin D receptor gene was in strong linkage with bone mineral density.¹ In contrast, in American twins we found no evidence of linkage of the vitamin D receptor gene with bone mineral density.² We were therefore interested in the study in British twins to see if it sheds light on these contrasting findings.³ Unfortunately, it does not.

Hip bone mineral density ($n=20$ pairs) and spinal bone mineral density ($n=23$ pairs), measured by dual energy x ray absorptiometry, in relation to TaqI polymorphism (T =presence of restriction site) in discordant adult female dizygotic twins. Twin pairs are connected by a line. Mean absolute differences between pairs and their significance, tested by analysis of variance, are also shown

Despite the fact that there were no significant ($P<0.05$) differences between dizygotic intraclass correlations in twins concordant and discordant for the vitamin D receptor gene at any of five skeletal sites, the authors conclude that bone mineral density is linked to the gene. The dizygotic intraclass correlation for bone mineral density of the spine, the site with strongest linkage in Australian twins, was 0.36 (SE 0.12) in concordant and 0.33 (0.14) in discordant British dizygotic twins. Furthermore, the direction of the difference between discordant dizygotic twins is not shown, and thus it is uncertain which allele associates with low or high bone mineral density. In dizygotic twins as individuals, the genotype tt has significantly lower adjusted bone mineral density than Tt or TT . However, 45% of these dizygotic twins had used oestrogen for a median of 24 months, and subjects of genotype tt (that is, those with the lowest bone mineral density) had lowest use (32%) and shortest median duration of use (12 months) of oestrogen, which in postmenopausal women leads to lower bone mineral density. Bone mineral density was corrected for use and duration of use of oestrogen, but it is not clear how this was, or indeed if it can be, done. It would be important to see an analysis without twins who had used oestrogen and to explain how data were corrected for use and duration of use of oestrogen.

The authors argue that their results contrast with ours because the number of discordant dizygotic twins in our study was small. Since our publication on 39 dizygotic pairs, 14 of whom were discordant for TaqI,² we have studied more dizygotic premenopausal twins not taking oestrogen, bringing our total number of dizygotic pairs to 53, 23 of whom are discordant for the vitamin D receptor gene. The larger sample supports our original conclusion of no linkage between the gene and bone mineral density. The dizygotic intraclass correlations for bone mineral density are higher, but not significantly, in discordant dizygotic pairs (dizygotic intraclass correlation: spine=0.59, hip=0.53) than in concordant dizygotic pairs (spine=0.44, hip=0.42). Moreover, the direction of differences in bone mineral density within twin pairs is random in relation to the vitamin D receptor gene (figure).

In summary, the British twin study shows no evidence of significant linkage between the vitamin D receptor gene and bone mineral density and corroborates both our original and our updated