training, administration and management, and audit and research aside from inpatient care and day surgery. This emphasises that, for all practitioners, workload—when quality as well as quantity is included—has increased over recent years.

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One cause for the decline may be the fall in senior junior staff

EDITOR,—David Armstrong and Mick Nicoll do not provide any evidence to justify their assertion that the average consultant saw 1680 new patients in 1949,¹ a year in which the combined number of whole time specialist senior hospital medical officers and senior registrars exceeded the number of whole time consultants.² It would be naive to believe that these staff did not have an important role in seeing outpatients. Since then the ratio of such senior junior staff to consultants has fallen to 1:3. The implication that because of this calculated reduction in consultants' average outpatient workload sufficient resources are available to meet the demands for additional outreach clinics without expansion in the number of consultants needs to be tested for the individual specialties concerned. For example, in 1949, 10.5 new dermatological patients were seen per clinic²—not, I suggest, very different from the situation today.

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1 Armstrong D, Nicoll M. Consultants' workload in outpatient clinics. *BMJ* 1995;310:581-2. (4 March.)
2 Ministry of Health. *Report*. London: HMSO, 1949. (Cmd 8342.)
3 Department of Health. *Health and personal social services statistics*. London: HMSO, 1972-94.

Psychiatry has restructured its service delivery

EDITOR,—David Armstrong and Mick Nicoll look at changes in consultants' workload in outpatient clinics since 1949.¹ The delivery of services in psychiatry has been completely restructured since then: it is now community based, with each consultant responsible for a specified population, and large asylums have gradually closed. Beds fell from 148 100 in 1954 to 64 800 in 1985, with a final target of 47 900. Simultaneously, annual admissions increased from 78 586 in 1955 to 185 514 in 1981.² Rather than hold expensive outpatient clinics for everyone, the consultant now heads a busy multidisciplinary community team. The team's activity increases annually—including new referrals. A general psychiatrist has 10-12 acute beds for a population of 45 000-55 000 and diminishing facilities for long term patients. Close liaison with primary health care teams is essential, and only referrals that fulfil the Audit Commission's criteria for severe illness (psychosis, organic disease, or recent discharges) are accepted.³ With subspecialisation, consultants supervise additional teams—for example, the effective deliberate self harm teams. The government, service users, and purchasers do not want asylums for severe mental illness or neurotic patients to be seen by consultants rather than by cost effective counsellors in primary health care teams.

Before drugs, electroconvulsive therapy, and effective short term psychotherapies for severe illness, long term support for people with neurotic

illness was normal. The challenge for consultants today is to train primary health care teams to recognise and treat mental illness in the community and encourage them to develop case registers and networking. Homicide figures indicate that only a third of mentally disordered patients who commit homicide have been in contact with psychiatric services in the previous year.⁴ Suicides could be prevented as two thirds of people who commit suicide have consulted their general practitioner in the preceding month; only a quarter are psychiatric outpatients. Suicide statistics are difficult to interpret: they peaked in 1936 for males, had fallen by 1946, and in 1986 were similar to those in 1946.⁵

We need to monitor whether the Health of the Nation's targets can be met by closer supervision of those at risk. If severely ill patients are known to, and monitored by, the service, with shared care, when a relapse occurs prompt care can be given. Appropriate skill mixes and case mixes allow consultants to manage the whole population efficiently and effectively, using their own skills to assess risk and treat resistant patients with sophisticated regimens, attend care programme meetings, and provide reports. Supervision of staff is more onerous as no case referred is now straightforward. With the care programme approach and supervision registers we carry responsibility for everyone referred, and increasingly for the total population served. Consultants are expected to give time to planning mental health strategy, including community facilities.

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2 Thornicroft G, Bebbington P. De-institutionalisation—from hospital closure to service development. *Br J Psychiatry* 1989;155:739-53.
3 Audit Commission. *Finding a place. A review of mental health services for adults*. London: HMSO, 1994.
4 Boyd W, and steering committee. *Confidential inquiry into homicides and suicides by mentally ill people. A preliminary report on homicide*. London: Steering Committee of Confidential Inquiry, 1994.
5 Farmer RDT. Suicide and poisons. *Hum Psychopharmacol* 1994;9:S11-9.

Existing outpatient services could be more efficient

EDITOR,—David Armstrong and Mick Nicoll suggest that patients are being retained in the outpatient system unnecessarily and that in recent years recycling of patients has worsened, thereby blocking access for new referrals.¹ They also suggest that an increase in the number of consultants would solve demand for outreach clinics in general practice despite the fact that hospital consultants have been seeing a declining number of new patients.

Recently we audited our general medical outpatient clinic because the doctors' workload was increasing steadily owing to rising numbers of patients. This was causing the clinics to overrun and making it difficult to accommodate urgent referrals. We analysed the patient content of the clinic and assessed the efficiency of patients' management. We found that the number of new patients attending the clinic exceeded the number being discharged and that a considerable number of patients were returning to the clinic for review of their management only and had been attending for several years. They also tended to have been seen by the more junior members of the team.

To address the problem, return patients are now seen by senior doctors, who assess them with a view to discharge. New patients may be seen at first by more junior doctors but, in accord with the patient's charter, see a consultant at their second attendance. All members of the team meet after the

clinic to formulate a management plan for each patient, and these meetings form part of the training for senior house officers. Since the introduction of the new regimen two months ago the number of patients discharged has been twice the number of new patients seen, which is a reversal of the trend identified in the original audit (table).

Numbers of new patients attending outpatient clinic and discharged from clinic at initial audit and after change in policy

	New patients	Discharged patients	Change
Four clinics audited early 1994	30	14	16
Seven clinics monitored late 1994/early 1995	41	92	-51

Our experience suggests that, initially, effort might more usefully be concentrated on improving the efficiency of existing outpatient clinics to provide a more expeditious service for referrals from general practitioners rather than hastening to appoint additional consultants in outreach clinics.

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Consultants may be seeing many new patients since 1991

EDITOR,—David Armstrong and Mick Nicoll show that the average number of new patients seen by a consultant has declined steadily from 1680 in 1949 to 618 in 1991.¹ They conclude that the "inefficiencies" in the health service are due mainly to the declining productivity in the hospital sector rather than in general practice and even suggest that consultants might have attempted to divert attention away from their declining workload in outpatient clinics by holding general practitioners responsible for the inefficiencies. They express concern that, despite these data, since the NHS reforms of 1991 the outpatient problem is beginning to be redefined in terms of a need for yet more consultants.

While appreciating their concern, we believe that caution is necessary in drawing conclusions by extrapolating from the historical trend of referral rates to the present, reformed NHS. Data on our ear, nose, and throat service between August 1990 and July 1994 at Horton General Hospital showed a rapid (70%) increase in the number of new referrals seen in the clinic under the supervision of a single consultant without any increase in the number of clinics (table). This increase occurred despite the fact that during that period we introduced a direct referral system for tonsillectomy and another one for hearing aids so that some new referrals bypassed the clinic.

While we cannot generalise the increase in our workload of new referrals to other specialties, we believe that the general trend in the rate of new

Numbers of new referrals and patients followed up in ear, nose, and throat outpatient clinic, August 1990 to July 1994

	New referrals	Patients followed up	Total seen
Aug 1990-Jul 1991	766	933	1688
Aug 1991-Jul 1992	1024	998	2022
Aug 1992-Jul 1993	1224	856	2080
Aug 1993-Jul 1994	1225	844	2069

referrals may well have reversed since 1991 because of the NHS reforms, which have seen so many radical changes in both general practice and the hospital sector. Until more up to date national data are available, Armstrong and Nicoll's argument, which is based on historical trends, may not be applicable.

In addition, our figures show a small decrease in the number of patients followed up during the period. This is contrary to Armstrong and Nicoll's suggestion that the problem of recycling patients has become worse in recent years and has resulted in access for new outpatient referrals being blocked.

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*In addition to the seven letters published above we received 11 other letters, reiterating the following points:

Some consultants work in specialties that do not hold outpatient clinics	6
More diagnostic and therapeutic procedures are now performed in outpatient clinics	6
There are more junior doctors, but they do less work in outpatient clinics	3
Patients referred to clinics are older and sicker, and there are fewer inpatient beds	2
The patient's charter requires that more time is spent on explanation	2

Barts, the general, and the fat controller

EDITOR,—I was interested to read that Charles Clarke does not believe in the Lord.¹ However, he completely misses the point. To understand the workings of the NHS, what is necessary is a belief in the devil.

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1 Clarke C. Barts, the general, and the fat controller. *BMJ* 1995;310:810. (25 March.)

The rhetoric of research

Encourage spin: it provides context

EDITOR,—The heart of Richard Horton's argument is that the presence of "spin" in a scientific paper is unjustified and serves the illegitimate purpose of empowering the "knowledge" that the author wishes to convey.¹ The ensuing debate with Trisha Greenhalgh seems superficial because they discuss legitimacy rather than the underlying assumption that a paper can be categorised into two separate elements, spin and knowledge.

Horton proposes the use of critical literary analysis during peer review to extract the essence of a paper (its knowledge) by brushing away the author's spin and facilitates the process by suggesting that the author relinquishes his or her authorship. An author, however, does not own words (in answer to Horton's question), for words are common currency. An author could be said to own the configuration of words that makes up his or her paper, but, more relevantly to Horton's argument, an author does not own the meaning that the configuration presents, for readers can generate their own meaning. This is illustrated in the different interpretations of the Eurogast study

that Horton and Greenhalgh produce in their debate.

Phenomenological theorists contend that each person is a self determining thinker who perceives the world from a unique standpoint, and as a consequence the interpretation of a phenomenon relies on the relationship between the interpreter and the phenomenon. Horton misconstrues social science discourse in suggesting that spin provides power; it is perhaps more accurate to suggest that spin provides context. Knowledge does not exist in a vacuum; it is embedded in context, and without context it is meaningless. The removal of spin or the standardisation of spin would merely serve to reduce contextual information available to the reader, reducing the opportunity to generate a meaningful understanding of the knowledge that the author was conveying—the consequence of which for Greenhalgh would be to be "dead, under the table from boredom."

Rather than defend against spin, Horton might find it more valuable to encourage it: to ensure that authors' motives are explicitly recorded in papers, as is the case with qualitative studies. Good qualitative papers enable readers conjointly to learn about a phenomenon while learning what that phenomenon means to the author and why.

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1 Horton R, Greenhalgh T. The rhetoric of research. *BMJ* 1995;310:985-8. (15 April.)

Embrace scientific rhetoric for its power

EDITOR,—I would like to join the formidable debate between Richard Horton and Trisha Greenhalgh on the rhetoric of research.^{1,2} As Greenhalgh points out, "Scientific writing is by definition rhetorical." All researchers do, frequently without intention, use language to emphasise the likely truth of their results. The paramount question, however, is whether such "spin" is detrimental to science. I believe that the contrary is true.

Firstly, the eloquence of basic scientific observation has of late been diminished by the growing need for its interpretation, as today's scientists deal less with straightforward facts than with complex probabilities. Hence, science is no longer truly meaningful without the projection of personal values and biases on to mere facts and figures.

Secondly, the published volume of today's scientific literature is too vast to entertain the hope that results could speak for themselves. We rely on researchers to lend their findings a strong voice which illustrates, emphasises, and promotes their data's relevance.

The "spin" in science writing, which alarms Horton, is almost always motivated out of a desire—far from wishing to deceive—to engage readers in the impact of one's data, in the distant hope that such resonance may constitute but the beginning of a lengthy process that ultimately may lead to improved clinical practice. Of course flagrant disparities between reported results and their subsequent discussion, or excesses of hyperbole, need to be contained (scientific journals must not degenerate into a marketplace for mere medical opinions), and to this aim the scientific community has widely embraced editorial and peer review, without underestimating the power of readers' own discernment.

Sadly, by the time pieces of medical research have found their way into the popular press, such discernment is often lacking, owing to pressure to print headline news rather than the complex scientific truths that were originally reported. However, the responsibility for such misrepresentation of science writing lies not with the

researcher and ought not to be advanced as an argument for the introduction of structured, conformist discussions. Let us, instead, embrace scientific rhetoric for its power, especially when infused with a touch of vision and passion, to excite scientific minds and invite debate.

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1 Horton R. The rhetoric of research. *BMJ* 1995;310:985-7. (15 April.)
2 Greenhalgh T. Scientific heads are not turned by rhetoric. *BMJ* 1995;310:987-8. (15 April.)

Recent review has similar findings

EDITOR,—For several decades sociologists, philosophers, and historians of science have been offering constructive approaches to understanding science and the nature of scientific inquiry.¹⁻³ Unfortunately, these pieces usually appear in journals and books which are seldom seen by scientists themselves, or they are treated by the scientific community with undue scepticism and often unfairly dismissed as irrelevant. Science itself would benefit from a more open minded outlook. With this in mind, Richard Horton's article⁴ should be welcomed into mainstream medicoscientific literature. It bridges an important gap and illustrates a valuable perspective to a scientific forum, in a manner accessible to scientists.

Along similar lines, Judy Segal recently reviewed 200 articles about functional headache that have appeared in established medical journals since 1982. She then showed rather elegantly how authors strategically try to influence their readers.⁵ As in Horton's article, Segal's demonstration involved textual analysis according to Aristotelean rules of composition and rhetoric.

It is fortunate that Horton did not see this article, otherwise he himself may have been unwittingly influenced by it.

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1 Harre R. *The philosophies of science*. Oxford: Oxford University Press, 1972.
2 Rowse T. Sociology pulls its punches. In: Levidow L, ed. *Science as politics*. London: Free Association Books, 1986:139-50.
3 Kessel AS. Medicine and "history and philosophy of science." *Health Care Analysis* (in press).
4 Horton R. The rhetoric of research. *BMJ* 1995;310:985-7. (15 April.)
5 Segal JZ. Strategies of influence in medical authorship. *Soc Sci Med* 1993;37:521-30.

This is an action situation

EDITOR,—When reviewing a scientific article, Trisha Greenhalgh¹ tells us that she drinks up the introduction and eyeballs the results. When she has eared her words, will she eat them?

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1 Greenhalgh T. Scientific heads are not turned by rhetoric. *BMJ* 1995;310:987-8. (15 April.)

Applicants for senior medical positions in New Zealand

EDITOR,—Ian Powell raises several sad points about the employment situation for salaried medical specialists in New Zealand,¹ which should serve as a warning to specialists in the NHS. The recent health reforms in New Zealand are similar to those in the NHS, with the creation of an internal market (a split of purchaser and provider