Letters

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Emergency response to 999 calls

Alternatives to the emergency 999 response can be seen in Europe

EDITOR—Snooks et al point out that the current 999 emergency response system has problems: increasing demand from the public and ever shorter response time targets.[1] They find a lack of evidence on alternative systems and responses in the English medical literature. By restricting their search, they overlook live examples only a few miles from these shores.

France, since the mid-1960s, has had a system which incorporates many of the alternatives quoted by the authors: the *Service d'Aide Medical Urgente* (SAMU).[2] Calls to the control room are logged by trained telephone operators and then passed on to a "medical dispatcher": a doctor in emergency medicine, trained by the service. Medical dispatchers may simply provide medical advice to the caller, or they may decide to use one of a range of other responses to a call. These are referral to, or the dispatch of, a primary care doctor; arranging non-urgent transport by a private ambulance; urgent transport by *pompiers* (emergency technicians working through the fire service); or sending out a mobile intensive care unit with a doctor trained in emergency medicine. Medical dispatchers also coordinate the deployment of additional resources and decide on the most appropriate destination for a patient.

In 2001 the service covering Paris received 300 000 calls (about 820 calls per day). Only 6% of the calls (50 per day) resulted in the dispatch of a mobile intensive care unit. In 16% of cases (130 per day) a primary care doctor was called. Altogether 205 calls per day were managed by the *pompiers*, by a private ambulance, or by giving medical advice. The remainder were considered not to warrant an emergency medical response.

In contrast, during the same period the greater Manchester ambulance service, which covers an equivalent urban population, received 256 000 calls (700 calls per day), all of which received a standard emergency paramedic response.

In greater Manchester calls are received by non-physician telephone operators using computer based algorithms to determine the time priority of response. Compliance with the pre-set questions is audited as part of a risk management process. In contrast, the doctor in the French service uses clinical training and experience, without computer support, to decide on the urgency and level of the response. We agree that alternatives to the current 999 system need to be explored. Aspects of the French service and other European models of emergency response deserve to be considered in the list of examples.

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1 Snooks H, Williams S, Crouch R, Foster T, Hartley-Sharpe C, Dale J. NHS emergency response to 999 calls: alternatives for cases that are neither life threatening nor serious. *BMJ* 2002;325:330-3. (10 August.)
2 Carli, P, Prehospital care in France, current status and international controversies. *Acta Anaesthesiologica Scandinavica* 1997;110(suppl):69-70.

Safe and reliable alternatives are needed

EDITOR—Snooks et al have started a debate on the issue of non-life threatening 999 calls and ways that ambulance services have begun to deal with this.[1] A sizeable proportion of calls received by ambulance control centres fall into this category, and with increasing demand for emergency ambulances, safe and reliable alternatives have to be adopted.

How should ambulance services respond to someone who has had non-traumatic back pain for 36 hours and to someone who has run out of his or her prescribed drug treatments over the weekend?

Call prioritisation systems, such as the advanced medical priority despatch system (AMPDS), are tools that were designed initially to reduce risk to ambulance crews and the public. Using this system, the call taker can code cases as life threatening, serious, or non-life threatening. The control room manager can then make decisions on how best the ambulance service should respond. He or she could send an ambulance on lights and sirens, delay a response, or refer the call.

Generally, the system is reliable at identifying those most in need of an emergency response but many have use of only elements of the system. For example, when little information is available or there are "unknowns," the dispatcher has to send a maximal response with lights and sirens. That's sensible enough. But when a patient's case is categorised as non-life threatening, dispatchers will still send an emergency ambulance using lights and sirens. In the light of increasing demand and dwindling resources, this "just in case" mentality is flawed. Sending ambulances using lights and sirens to all calls increases the risk to crews and the public, limiting the availability of resources to respond when a real emergency comes in.

Full use of the system can allow "cold calling" or referral to other agencies, but rarely will a service make use of these options. Some ambulance services might have no alternative links with community care teams or NHS Direct, for example. In practice, the idea of referring callers back to NHS Direct or to their general practitioner fills many control room staff with dread, but this is because services are not using the system fully.

It is easy to justify a rapid response to a chest pain, or acute asthma attack. Can we so easily justify a risky lights and sirens response to that patient with ongoing back problems?

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Ambulance service is weakest link

EDITOR—Snooks et al describe the inappropriate use of 999 calls by patients (or their relatives) for non-urgent conditions, which is a huge problem, both numerically and financially.[1] Much rarer, but with very severe consequences, at the other end of the severity of illness spectrum, is the response of the ambulance service to do not resuscitate instructions when 999 has been called.

Dialling 999 will override an instruction not to resuscitate, even when this has been agreed with the parents. Contrary to the

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popular view, including that held by Dame Justice Butler Sloss,[2] decisions about resuscitation are not "doctor knows best" but are discussed fully with parents, and the paramedical crew will attempt resuscitation.

Similarly if a patient is transferred from hospital to home to die with an instruction not to resuscitate, signed by the appropriate consultant, if the patient deteriorates in the ambulance and a relative requests resuscitation, this is deemed to override the instruction, even though this may be against the wishes of the patient or parent; what has been agreed with the medical attendants; and the instruction of the courts. I am not sure how the ambulance service would defend that action if a patient had given an advanced directive that he or she did not want resuscitation, or if a court had ruled that not resuscitating was the correct course of action.

Many ambulance services are now coordinated on a regional basis and claim that they cannot have local knowledge. However, this is a specious argument even with current information technology and will become even less sustainable with technological advances. If, with the parents' permission, I have written to the ambulance service giving details of a patient who is not for resuscitation, it cannot be beyond the wit of humans to devise a computer system such that when a 999 call is received at ambulance headquarters the operator is alerted to special instructions regarding that patient.

Discussing (non-)resuscitation with parents is difficult for parents, doctors, and others involved in a child's care. It is often a slow process, over several months or even years, guiding parents to the inevitable truth about their child—and it can be destroyed in an instant. The ambulance service is the weakest link.

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Wanted: patients with mental illness in role of teacher

EDITOR—Wykurz and Kelly reviewed developing the role of patients as teachers.[1] Mental illnesses are ideally suited for patients to be teachers because diagnosis is based on symptoms that they have first hand experience of. This is especially important for schizophrenia, which is considered to be the worst and most devastating mental illness.

Care of schizophrenia has during the past 50 years changed drastically from care in mental hospitals to outpatient care. Education has naturally changed during these 50 years, but it would be strange if both current care and education were optimal.

Cultural, social, and care factors can dramatically affect schizophrenia, as shown by the World Health Organization's 10 country study, in which cases of continuous psychotic illness varied between 2% in Nigeria and 33% in Japan.[2] Thus factors other than symptoms, such as discrimination and social problems, need to be investigated. I am not sure if current medical teachers have an accurate picture of such interactions. Ideally, their existence should be described before academic lectures on the disease to have the best effect on students and induce discussion.

As the public is prejudiced about schizophrenia, so are students. Thus they should meet patients with controlled disease rather than those with acute psychosis in hospital wards. Acute psychosis is not highly representative of normal schizophrenia. According to the WHO's fact sheet on mental and neurological disorders nearly half of all patients fully recover from schizophrenia.[3]

This rate is much better than most doctors think, so students need to meet patients who have recovered from schizophrenia. If students were allowed to meet recovered patients and patients with stable disease, I am sure that psychiatry would become a more attractive discipline, which in the long term should have a positive effect on the quality of psychiatric care.

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1 Wykurz G, Kelly D. Developing the role of patients as teachers: literature review. *BMJ* 2002;325:818-21. (12 October.)
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3 World Health Organization. Mental and neurological disorders. Fact sheet No 265, December 2001. www.who.int/inf-fs/en/fact265.html (accessed 21 Nov 2002).

Debate on mental illness and violence was oversimplified

EDITOR—The central message of Walsh and Fahy's editorial—that the contribution to societal violence of mentally disordered persons is too small to justify the apparent preoccupation of politicians and the print and broadcast media—is correct, although it is becoming hackneyed after endless repetition.[1] Despite this, an established association exists between mental disorder and violence that cannot be explained by cofactors.[2] Even if there were no statistical association psychiatry would still have a role when they do coexist.

The failure of forensic psychiatry to show simple associations between specific symptoms (of psychosis) and violence has been followed in recent years by repeated assertions that the relation between mental illness and violence is minor. At the same time, medium secure psychiatric facilities continue to proliferate and forensic psychiatry continues to expand and superspecialise. Some might say that "less than 10% of serious violence" is an appreciable proportion to be attributable to psychosis—the most severe and least common form of mental illness.

Unsurprisingly, the public, politicians, and the media are confused. What is left is a perpetual conflict between, on the one hand, the public's understandable insistence that psychiatry engages in public protection and, on the other hand, psychiatry's endless repetitions of the same tired statistics, which pointedly fail to address the public's concerns.

Psychiatry cannot expect the public to understand the vicissitudes of psychiatric diagnosis so long as it continues to insist that there is one group of patients with "real mental illness" (usually psychosis or schizophrenia) who pose little risk, and another group of people with "pseudo-mental illness" (personality disorder and substance misuse) who cause all the problems. Everyone knows that this is overly simplistic and irrelevant to the real world, where personality disorder, substance misuse, severe mental illness, and less severe mental illness commonly coexist. Attempts to divine exactly what proportion of violence may be attributable specifically to psychosis or to other psychiatric syndromes is futile.

The public deserves a more sophisticated debate than this. Rather than avoiding responsibility on the basis of what will appear to be spurious diagnostic conveniences, psychiatry must accept its occasional role in public protection and the importance of risk of violence assessment in clinical practice, while openly and clearly explaining the limits and difficulties of clinical risk assessment and debating the appropriate boundaries of psychiatric care.

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1 Walsh E, Fahy T. Violence in society. *BMJ* 2002;325:507-8. (7 September.)
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The NHS, the private sector, and the virtual asylum

Editorial was destructive

EDITOR—We were surprised by the tone of and the stigmatising language and strong opinions without cited evidence in the editorial by Poole et al on the NHS, the private sector, and the virtual asylum.[1] The article sets out many undisputed facts such as the decline of the county asylums and the current inadequate provision of mental health beds under the NHS. No evidence is, however, cited to support the description of difficult to manage patients in the independent sector, poorly staffed small units, or the lack of activity or rehabilitation for patients.

What evidence there is does not support any of these claims.[2 3] Paradoxically, the acknowledgement that larger independent

facilities may give a higher quality of care than the NHS is also left unsupported. Further criticisms are made of NHS services and planning, again without evidence.

No mention is made at all of the rapid regionalisation of independent sector facilities, a key development in meeting patients' needs more locally. Quite how the authors perceive a lack of any policy framework or regulation to protect patients is unclear. The Care Standards Act has introduced the national minimum care standards as part of a stringent framework of policy, clinical standards, and inspection, in addition to that provided for patients by the Mental Health Act Commission.[4] Under the aegis of the Independent Healthcare Association, members of both the private sector and the voluntary sector are also subject to external quality control, such as the King's Fund Health Quality Service. Interestingly, the Care Standards Act does not apply to the NHS.

Offering phrases such as private madhouse, acculturation to institutional life, and virtual asylum, Poole et al raise the possibility of the private sector being discredited in a destructive moral panic. No evidence is given as to why this has become in any way likely, except perhaps as an effect of such palpable hostility. Their piece is an example of the conflicted thinking on public-private partnership still prevalent in the state sector. This blights NHS planning for constructive partnership and needs to be addressed in the interests of patients.

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We are employees of the St Andrew's Group of Hospitals, a registered charity providing specialist psychiatric care in Northamptonshire, Essex, and Middlesex.

1 Poole R, Ryan T, Pearsall. The NHS, the private sector, and the virtual asylum. *BMJ* 2002;325:349-50. (17 August.)
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4 Department of Health. *Care Standards Act*. London: Stationery Office, 2000.

Misconceptions are naive

Editor—The editorial by Poole et al on the NHS, the private sector, and the virtual asylum understates and misrepresents the contribution of US independent psychiatric providers.[1] The Department of Health figures cited provide more information than the authors report. The table shows the NHS with 34 210 (55%) inpatient psychiatric beds and the independent sector with 28 780 (45%), both of which exclude residential care units.

Poole et al complain that independent operators are disbursed, invisible, and not properly regulated. Count me among those who are delighted that these 28 780 beds are disbursed; they are mostly small establishments that respond fast to the call to provide community care on a 24 hour, 365 day basis. They are not invisible: they are shiny, clean, proud, quasi-public institutions that devote huge effort to visibility to attract inpatient and outpatient customers. They are heavily regulated by the National Care Standards Commission, the King's Fund Health Quality Service, the Mental Health Act Commission, private medical insurers, malpractice insurers, and other regulatory bodies in varied ways in which NHS hospitals are not.

Our strictest regulation comes from NHS general practitioners and specialist teams who refer to us. Each receives a confidential weekly status report, is invited to periodic care programme planning meetings, and receives a discharge summary by fax or email on the date of discharge. Our consultants have ward rounds at least three times a week as a condition of their contracts. If professional referrers are dissatisfied with the service their patients receive they have freedom of choice to select another independent unit from among 20 or more organisations that compete on the basis of quality, immediacy of response, and price. This market discipline has in fact closed more than 10 independent units in the last decade by withholding referrals—and we are all better off because of it.

The cited Department of Health statistics also show 231 000 completed consultant episodes in NHS psychiatry in 1998. That means our small, 400 bed organisation's 3600 acute admissions this year makes a contribution to public health roughly equal to 1.7% of the NHS's total provision. A census of 60 competing private establishments and 200 consultant psychiatrists in full time private practice would run this tally up to perhaps 25% of total provision in all acute care and high dependency areas of psychiatry. Half of this work is NHS funded and half self funded in cash or through private medical insurance schemes, which Poole et al don't mention.

Everyone wants the debate to continue so that all psychiatric providers—public, voluntary sector, and independent—can best serve patients. But readers need to be informed with hard facts on all sectors. Please avoid perpetuating misconceptions.

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No lessons have been learnt

Editor—The editorial by Poole et al on the NHS, the private sector, and the virtual asylum must have struck a chord with many psychiatrists.[1] The move from institutional to community care has occurred later in services for people with learning disability, but the same mistakes are being repeated.

Around Bristol the large hospitals for people with learning disability have been closed. Only 12 admission beds for a population of 1 million remain, and 40 rehabilitation beds are earmarked for closure over the next year. The loss of over 1200 NHS beds has been replaced with over 1200 beds in private residential care or nursing homes.

For over 10 years social services have been seen as the main commissioners of care for people with learning disability, and, with the new partnership boards, are to commission residential health care. We still see no evidence of them having the knowledge, strategic vision, will, or staff to ensure that the private sector overall provides a comprehensive local service that can deal with a wide range of challenges and needs in an individual manner. No provision has been planned for the longer term care of detained patients, patients who require forensic psychiatry, or patients who require rehabilitation by skilled staff.

The private sector is subject to market forces and therefore can be responsive to service needs, but it needs good leadership to develop high quality entrepreneurial services. The new private system is open to strong external inspection to maintain good basic care and a healthy environment, but in learning disability, as in mental health, little good supervision is taking place of the quality of clinical care provided for individual patients.

The local disaggregation into five primary care trusts and their partnership boards has now apparently made it impossible to plan jointly the provision of new expensive tertiary or quaternary services. The commissioning costs are divided, and each is faced with funding expensive emergency placements without the resources to plan a less expensive service proactively. These emergency placements have cost as much as £750 000 a year. When longer term skilled placements are needed, people still go outside the area, where they are less supervised by the local team and little incentive exists for the provider to rehabilitate them.

Until we can obtain good commissioning and good placement supervision along with an effective mechanism to plan together, patients and their families will continue to suffer and money will be wasted.

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Authors' reply

Editor—It is unfortunate that we have provoked a defensive reaction in two large private sector providers, St Andrew's and their business partners Cygnet. Our editorial is not an attack on the private sector. On the contrary, the private sector has fortunately provided extra bed capacity in the absence of appropriate NHS provision for long stay mentally ill patients.

Hughes describes the full range of his company's services, much as he did in a recent *Sunday Times* article.[1] His few comments that are pertinent are unsustainable. Shiny, clean, proud, quasi-public insti-

tutions exist, but many more small nursing homes are tucked away in redundant hotel buildings or close to commercial areas outside towns. He celebrates dispersal, but the provision of long term care far from home was a key failing of county asylums. It isolates patients and militates against rehabilitation to less institutional settings. Our experience of visiting many patients across the full spectrum of private care does not support his complacency about the effectiveness or appropriateness of the regulatory systems.

The St Andrew's correspondents object to the rhetorical nature of the paper, but this is the function of an editorial. In defending themselves against perceived attack they cite evidence relating to medium secure units, which represent only a small part of long term provision. Long stay patients placed outside their area have attracted little research attention, although the flaws in the system of care are widely recognised. Information about these patients is difficult to access. Systematic research is needed urgently. This must be focused on patients, not institutions, to establish better systems of long term care, straddling private and public provision.

Who, we wonder, are we accused of stigmatising? Private madhouse is accepted historical terminology. Acculturation to institutional life is the outcome of rehabilitation when it occurs without integration with the next stage of care. Virtual asylum alludes to "county asylum." Institutional psychiatric care far from home is as known as "asylum." The term may be uncomfortable but is neither stigmatising nor unfair.

It is disheartening, although hardly surprising, to learn that similar problems exist in learning disability services. Even high quality institutions cannot overcome the inevitable failings of ad hoc whole systems of care. Variations in quality of care exacerbate rather than cause these problems. Such variations exist both in and across the NHS and the private sector.

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We are seeking funding to research the care of long stay mentally ill patients placed outside their area.

1 Hughes J. Private sector can help NHS care better for mentally ill: the Enterprise Network. *Sunday Times* 2002;14 July:business section.

Sexual health services need wider approach

Editor—Solaro et al report on a pilot study to deliver improved sexual health services in general practice.[1] We agree that sexual health problems need to be normalised and seen as part of general medical care and that increased capacity can be provided in the community. But general practice is not the only provider outside hospital. Community sexual and reproductive health clinics are moving quickly away from being family planning clinics, and community pharmacists are taking on an extended role in sexual health care.

In Lewisham, south east London, we have been managing sexually transmitted infections in our clinics since November 2001. In the first six months we took 1847 microbiological tests, and treated 295 clients for chlamydia, warts, and herpes (and as contacts of these conditions where appropriate). Our figures include over 60 men who attended for testing or treatment. (Urine testing for sexually transmitted infections would be a great help but needs serious investment at all levels if clinical services and laboratories are to manage the likely demand.) Selected community pharmacists have made an NHS supply of oral emergency contraception available to 2000 women in the past year.

We believe that an integrated approach between general practice, community services, genitourinary medicine, the voluntary sector, and youth and education services is the most likely strategy to reduce the current epidemic of sexually transmitted infections, particularly among young people.

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Efficacy, safety, and cost of new anticancer drugs

Pessimistic conclusion was not justified

Editor—Garattini and Bertele' conclude that new anticancer drugs introduced during the past six years have not increased survival or quality of life in cancer patients.[1] This is a surprising conclusion to be made at the end of a decade during which unprecedented advances have been made in the treatment of common tumours, in both survival and quality of life. Perhaps if they had examined the contemporary literature and taken account of oncology practice they might have reached a less pessimistic conclusion.

The authors rely heavily for their negative general comments on the value of cancer chemotherapy and chemotherapy trials on the population mortality based study of Bailar and Gornik, which used data collected between 1970 and 1994, predating by many years the period being considered here.

Most of the drugs examined have been evaluated extensively in randomised trials, many with evaluations of quality of life. For example, the taxanes significantly enhance survival in both adjuvant treatment and treating metastatic breast cancer, as well as in lung cancer and ovarian cancer.[2 3] Recent results from randomised trials of irinotecan and oxaliplatin (not considered by this article) show extended survival in colon cancer, underlining the significant progress that is being made in the chemotherapy of common cancers.[4]

Although cost considerations are important, they should not affect our judgment of the utility of a new agent. The drugs chosen for cost comparison are mostly inappropriate because they are either not indicated or ineffective in the indication concerned. For example, taxanes are normally used in breast cancer that is refractory to hormones or negative for oestrogen receptors, where the use of tamoxifen would be irrelevant. The comparison of costs of oral versus intravenous treatment (temozolomide and capecitabine) ignores the additional costs of intravenous administration. Giving the oral drug may have economic advantages and be the preference of the patient.[5] The ephemeral nature of drug pricing as a result of competition by generics or other drugs in the same class has been overlooked in the cost calculations.

The oncology community now routinely performs large international trials with survival and end points of quality of life. It is naive, if not disingenuous, to criticise current drugs on the basis of data available on the EMEA website alone. We all hope that the outlook for future cancer patients will improve further, and that the advent of new targeted agents will contribute to that improvement. Garattini and Bertele' have done these patients no favours.

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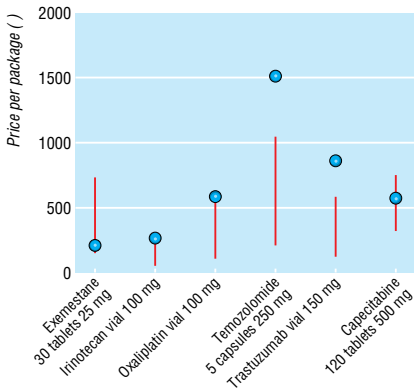
Price needs to be evaluated against effectiveness

EDITOR—Garattini and Bertele' addressed the problem of the cost of the newest anticancer agents.[1] Many innovative anticancer agents have recently become available in Italy, and all have been approved for nationwide reimbursement. The high cost of these agents makes evaluating their price against their effectiveness worth while.

We conducted an analysis on these new anticancer agents, comparing the price approved by Italy's ministry of health with a reference price range determined with a pharmacoeconomic algorithm.[2] The algorithm values each month of life gained according to current international standards (from €1000 to €5000 ($1010-5050; £633-3165) per month of life gained) and incorporates reductions in hospital stay. We applied it retrospectively to the innovative anticancer agents submitted to the Italian health ministry from February 1999 to August 2001.

Most of the prices approved by the negotiation committee were higher than the reference window given by the pharmacoeconomic algorithm (figure). Hence, at least in Italy, modern innovative anticancer agents are generally assigned a higher price than that suggested by current pharmacoeconomic standards.

In oncology relating the drug price to the survival gain is the most reasonable way to handle the negotiation problems raised by these drugs. Of course, improvements in quality of life could be another important component of clinical effectiveness (and of the consequent price calculations), but we believe that the pharmacoeconomic methods available are not sufficiently mature to propose specific algorithms.



Innovative anticancer agents approved in Italy: comparison between price range or "negotiation window" proposed by pharmacoeconomic algorithm (horizontal line) and final price approved by the negotiation committee (vertical circle)

Our findings are likely to be similar to those in other European countries because variations between countries are becoming smaller owing to the multinational marketing strategies of most drug manufacturers (particularly for anticancer treatments). In our analysis no cases were valued at an unreasonably high level of cost effectiveness. In contrast, these exceedingly high levels of (incremental) cost in comparison with (incremental) effectiveness have occasionally been documented in disciplines other than oncology—for example, preoperative autologous blood donations and interferon beta-1b in secondary progressive multiple sclerosis.[3 4]

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Authors' reply

EDITOR—Contrary to what Calvert et al say, our article did not imply that there has been no gain for patients with cancer during the past six years. It aimed at showing the evidence available when a new drug is approved by relying on the documentation accompanying EMEA approval, while not overlooking the current literature. The fact that we are usually dealing with few patients, phase II trials, open label studies, and lack of comparison makes it difficult to establish how to position new anticancer drugs in the existing therapeutic arsenal.

The taxane issue Calvert et al raised is not reflected in the paper mentioned, which concludes that the impact of these drugs on the natural course of breast cancer has still to be defined.[1] The combination of cisplatin and paclitaxel for advanced ovarian cancer was not validated by studies showing that cisplatin is responsible for the efficacy of the combination.[2 3] Irinotecan and oxaliplatin are not even mentioned in the paper supposed to support their merit.[4]

As for the costs, we agree with Calvert et al that direct comparison of tamoxifen and chemotherapy is not pertinent. The table in our article, however, also allowed a comparison of the costs of docetaxel and paclitaxel. For temozolomide it is difficult to accept that its cost (€2143 ($2165; £1356) per cycle) is compensated by the avoidance of intravenous injections, since oral formulations of procarbazine and capecitabine are available too. In any case, why should the whole potential saving for the NHS be routed back to industry rather than being invested for better services, supportive care, and independent research? As for the alleged economic advantages, most of the economic analyses of new drugs used in oncology have been criticised on the basis of conflict of interests of the authors.[5]

The analysis by Messori et al supports our view that innovative treatments in oncology are too expensive. Their cost effectiveness may be not "unreasonable," as in other areas, but this depends on how reasonable the assumptions of pharmacoeconomic models used actually are.

We all hope that the future will be brighter, but we must be honest in our promises to patients and objective in information to doctors. Any undue burden for drug expenditure will always be at the expense of other measures that might contribute to better care. Calvert et al may not endorse it, but this is the favour we believe has to be paid to patients with cancer and their families.

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Competing interests: In the past five years VB has received fees for speaking from Schwarz Italia SpA and Instrumentation Laboratory, and for scientific advice from SmithKlineBeecham and Aventis Pharma.

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Occupational disease can also develop in non-working children

EDITOR—I agree with Scanlon et al, who say in their editorial that child labour is now globally the largest single cause of child abuse.[1] They add that most of it takes place in the developing world and much is hidden.

What they do not say is that, in a situation analogous to passive smoking, children who do not work can also have occupational disease. In Madhya Pradesh in northern India there is a "belt" of stone crushing sites employing many people. In March 2000 I performed outreach clinics on these sites.[2] Owing to the pressures of absolute poverty, workers' families live on these sites in close proximity to uncovered stone crushing machines. Children including babies are on site for 24 hours a day and are therefore at risk of developing silicosis. This is a form of restrictive lung disease and is a risk factor for the development of subsequent silico-tuberculosis. In classic silicosis spirometric changes precede the development of symptoms. Studies have shown that after 30 years' exposure about 40% of American granite workers had subnormal spirometry results.[3] These workers had the intermittent exposure of a normal working week, but children living on site are continuously exposed to silica dust. The children are admittedly not at the workface, but in the study quoted above foremen who merely breathed in the ambient air still had about two thirds of the loss in forced vital capacity of the average worker.

Research is hampered by confounding factors—for example, "beedi" (Indian herbal cigarette smoking) and difficulties in recruiting appropriate controls (lung function is affected by malnutrition), obtaining informed consent (in illiterate groups), motivating subjects during testing (spirometry is effort dependent and demanding), and assessing total exposure (in itinerant workers' families with no attendance registers).

Vested interests are also at play. In 1999, after publicity in *Hindu-Sambradi*, the local press, the district magistrate closed down a site pending our suggested improvements (moving living quarters off site, providing crèche facilities for workers' children, and covering the stone crushing machines). In contrast to the site owners, who are rich and powerful, the workers are a vulnerable group because of absolute poverty. In the absence of any new provisions from the former, it was the workers who demanded reopening of the site for economic reasons.

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Competing interests: None declared.

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Power is indeed irrelevant in interpreting completed studies

Editor—I agree with Bacchetti (and most correspondents).[1] Power is of no relevance in interpreting a completed study. In his classic, *Planning of Experiments*, Sir David Cox says that power is important in choosing between alternative methods of analysing data and in deciding on an appropriate size of experiment and that it is quite irrelevant in the analysis of data.[2]

I also agree with much of what Horrobin says, but he overstates the case against sample size determinations in pilot studies.[1] In most indications the variability is a function of the disease not the treatment, and the fact that the treatment has not been studied is no bar to using an estimate. The difference you are seeking is not the same as the difference you expect to find, and again you do not have to know what the treatment will do to find a figure. This is common to all science. An astronomer does not know the magnitude of new stars until he has found them, but the magnitude of star he is looking for determines how much he has to spend on a telescope.

The definition of a medical statistician is one who will not accept that Columbus discovered America because he said he was looking for India in the trial plan.[3] Columbus made an error in his power calculation—he relied on an estimate of the size of the Earth that was too small, but he made one none the less, and it turned out to have very fruitful consequences.

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Competing interests: SJS consults extensively for the pharmaceutical industry and his career as an academic is furthered by publication and grants awarded.

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Follow up of people fitted with hearing aids

Hearing therapists should explore whole subject of emotional and social support

Editor—In their follow up study of people fitted with a hearing aid after adult hearing screening Gianopoulos et al highlight the need for support after the fitting.[1] As a professional with hearing loss since the age of 7, I was fitted with hearing aids at the age of 16 without any follow up or support. Only when I was 30 did I begin to use the aids on a regular basis.

Why do I believe that I would have benefited from support?

At first the hearing aids did not confer the benefit that I desired—total restoration of my hearing. Then I was not aware of the best situations in which to use them or the time and place where they should not be used. Finally, hearing aid fitting is only a minor part of dealing with loss of hearing.

I have discovered that hearing therapists who explore emotional and social support, including advice on the use of hearing aids, will provide most benefit to people with loss of hearing. Unfortunately, it has taken me 34 years to find such help, but it is better late than never.

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1 Gianopoulos I, Stephens D, Davis A. Follow up of people fitted with hearing aids after adult hearing screening: the need for support after fitting. *BMJ* 2002;325:471. (31 August.)

A draft patient information sheet for new hearing aid users

Editor—Gianopoulos et al have shown the importance of counselling and support after a new hearing aid is fitted.[1] I have used a hearing aid for 12 years and can heartily endorse this. I submit a draft patient information sheet for new hearing aid users, based on an extensive survey of, well, myself (sample size n=1).

Here's what I wish I'd been told.

Things you should know about your new hearing aid

Congratulations on your new hearing aid. Here are a few things you should know.

- It will not give you your hearing back
- It will make your family sound like Daleks
- Every time the dog barks, you will fall off your chair in shock
- You will feel hugely self conscious, as if the hearing aid is twice the size of your head
- The whistling will sap your will to live
- The hearing aid mould will chew up your ear something awful

However, do not despair—after a certain length of time (a few weeks or so):

- The aid will feel small and comfortable
- You will figure out how to deal with the whistling and loud noises
- Your family will sound normal again (warning: this depends on how normal they sounded to start with)
- You will wonder how you ever managed before

Good luck, and don't forget to prolong battery life by switching your aid off at night and when being asked to wash the dishes.

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