Letters

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Storm over screening for prostate specific antigen

Right to choose is important

EDITOR—Yamey and Wilkes argue that questioning cancer screening, specifically prostate specific antigen (PSA) screening can be a risky business in America.[1] My prostate cancer, like so many others, was silent and only revealed after a PSA test that my daughter nagged me into adding to my biennial company medical examination—unfortunately too late to guarantee a cure. After surgery and adjuvant radiotherapy I probably have a better prognosis than two colleagues who presented with bone metastases (and PSA values, when tested, in the 100s).

My PSA result alerted me to a potential problem and let me enter an informed debate with the medical profession—no one forced me to have a biopsy, or an operation, or opt for surgery over radiotherapy, or decline hormone therapy, or do nothing. I could talk to my doctors, read books, and use the internet. I could assess the risks and benefits of a radical prostatectomy and, what is more, carry out this assessment against the background of a medical profession uncertain as to the best course of treatment for someone presenting with my results.

The key issue is that I could participate in making a life threatening personal decision, rather than have participation (and, by extension, timely treatment) denied to me because PSA screening had been ruled out for the entire male population on the basis of historical statistics. I am enough of a cynic to believe that some of the uncertainty surrounding PSA testing policy in the United Kingdom relates to resources.

During my decision making process, I came across a paper on dilemmas in treating early prostate cancer.[2] It was easy to work out that there just aren't enough experienced urologists (who are dextrous enough to carry out this tricky operation successfully and have the courage to attempt it) to carry out the number of radical prostatectomies that early detection by PSA testing would indicate. This sample of 244 urologists had a mean of 14.1 years' experience (range 2-30 years), and 130 of them managed 100 patients or more with prostate cancer. Expertise in performing radical prostatectomy was restricted to comparatively few—98 reported having ever performed the procedure and only 12 (14%) that they performed 20 or more operations yearly.

I also suspect that the United Kingdom is far short of the number of three dimensional conformal radiotherapy machines needed to offer that treatment option.

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1 Yamey G, Wilkes M. The PSA storm. *BMJ* 2002;324:431. (16 February.)
2 Donovan JL, Frankel SJ, Neal DE, Hamdy FC. Dilemmas in treating early prostate cancer: the evidence and a questionnaire survey of consultant urologists in the United Kingdom. *BMJ* 1999;318:299-300.

Innuendo in article is insulting

EDITOR—Yamey and Wilkes offer tabloid journalism to advance their position by saying that they dared to tread on the toes of a powerful pro-screening lobby.[1] They point out that this lobby has major competing interests, since it has a financial stake in offering investigations and treatments for prostate cancer. Even some of the charity groups in this lobby have competing interests, since they receive funding from manufacturers of treatments for prostate cancer or have ties with the American Urological Association. The backlash against their piece, they say, smells like a battle to hold on to power and money.

I am a survivor of prostate cancer caught by screening, and I am insulted by the implication that we survivors who object to their distortion of evidence on screening for prostate cancer are part of a dark conspiracy, a "lobby" orchestrated by powerful self serving interests. We survivors want only one thing: that no man be "blind sided" by prostate cancer because of ignorance of the potential and thus no opportunity to exercise the right to decide for himself. Nobody tells us what to say, nor what we want.

In September 1994 I was "caught" by screening during the annual prostate cancer awareness week, with prostate specific antigen (PSA) of 14 ng/ml at the age of 57. This prompted the urology consultation that found an irregular prostate gland by digital rectal examination, and the resulting ultrasound guided biopsy found four cores out of seven cancerous. In December 1994 another asymptomatic man, because of my experience with screening, received a diagnosis at age 64, PSA 4+, but a more aggressive cancer on biopsy (Gleason 4+3). He chose not to intervene. In September 1997 his PSA was 10, in December 1997, 90. He was buried in the summer of 1998, his last months in a morphine induced stupor.

My intervention, on the other hand, was state of the art for the time, a combination of hormonal ablation, external radiation, and implanted radiation. My PSA on 16 July 2001 was 0.11 ng/ml.

My quality of life is compromised only by mild urinary urgency and increased frequency, and a slightly less than average sexual capability for a man of 64. Small inconveniences compared with dying. Pain associated with screening? Discomfort more accurately describes the process itself. Psychological trauma? Compared with dying, minimal.

Mortality from prostate cancer declined over 18% from 1993 to 1998. Screening works. But, more importantly, men do not need protective paternalistic doctors interfering with their health decisions by presenting distortions of studies and research as anti-screening fact.

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Give men facts on prostate cancer

EDITOR—The American Urological Association and the American Foundation for Urologic Disease are aware of the controversy surrounding the use of prostate

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We prefer to receive all responses electronically, sent directly to our website. Processing your letter will be delayed unless it arrives in an electronic form.

We are now posting all direct submissions to our website within 24 hours of receipt and our intention is to post all other electronic submissions there as well. All responses will be eligible for publication in the paper journal.

Responses should be under 400 words and relate to articles published in the preceding month. They should include ≤5 references, in the Vancouver style, including one to the BMJ article to which they relate. We welcome illustrations.

Please supply each author's current appointment and full address, and a phone or fax number or email address for the corresponding author. We ask authors to declare any competing interest. Please send a stamped addressed envelope if you would like to know whether your letter has been accepted or rejected.

Letters will be edited and may be shortened.

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specific antigen (PSA) testing.[1 2] We have followed the debate in the *San Francisco Chronicle* since it printed the article by Yamey and Wilkes. Our previous letter was not printed by the *Chronicle*.

Both organisations support informed patient decision making in the early detection of prostate cancer. Along with the American Cancer Society, the National Comprehensive Cancer Network, and other groups, we believe that men over age 50 should consider the test—but should also discuss the benefits and limitations with their doctors. Men at higher risk, such as African-American men and men with a family history of prostate cancer, should consider the test more seriously. All men should know that prostate cancer is the second-highest cause of cancer deaths in American men. As non-profit organisations we promote the highest standards of urological clinical care through research, education, formulation of health policy, and patient outreach.

In 2000 compelling data showed a decrease in prostate cancer mortality in white men less than 85 years of age to rates below those existing in 1986 in the United States.[3] Interestingly, 1986 was the year that PSA testing was approved. Another recent report shows that a downward trend has emerged in mortality from prostate cancer that coincides with an increase in PSA screening, particularly in the United States and Canada.[2] These data fuel the support for widespread PSA testing in conjunction with informed patient decision making. Our organisations recognise that more research is needed to improve and refine prostate cancer detection and strongly advocate for more research funding to combat and prevent this devastating disease.

The American Urological Association and the American Foundation for Urologic Disease respect the right to express opinion and do not wish to silence Yamey and Wilkes. Since the American Urological Association's formation in 1902, we have seen a century of medical achievements, a field fraught with controversy, and novel, unpopular ideas spurring advances that gave doctors new ways to diagnose and treat disease. We all share a responsibility to ensure that the patient comes first. Today's patient seeks to be well educated and informed, and promoting distrust of cancer detection techniques does more harm than good. We seek ways to improve prostate cancer detection, outcomes, and quality of life for patients—by developing new testing tools or refining our current ones, not disparaging them. American men do not need yet another excuse to ignore their health.

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1 Ferriman A. Advocates of PSA testing campaign to silence critics. *BMJ* 2002;324:255. (2 February.)
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Number needed to test needs to be known

EDITOR—The debates on screening for prostate specific antigen (PSA) inspired by the article by Yamey and Wilkes make no mention of how many men need to be tested to identify one prostate cancer or prevent one related death.[1] I believe that an agreed estimated number (or range of numbers) needed to test should be the first step to address this controversy.

For every 1000 men age 55-74 who have initial PSA screening and digital rectal examination, 189 would have PSA >4 ng/ml and 27 of these would have biopsy proved prostate cancer.[2 3] If we exclude patients with minimal disease who require no treatment and those with incurable advanced disease, this leaves 14 patients (50%) with potentially curable, localised disease.[w1-w3] About 10 of these patients (70%) would be cured with prostatectomy or radiation, assuming cure as being alive and free of disease 10 years after treatment.[w4-w10]

In other words, PSA screening could prevent 10 deaths related to prostate cancer per 1000 men tested, or a number needed to test of 100. Whether this number is too high or too low depends on many other factors, such as the risks associated with PSA testing. I suspect, however, that many involved in this debate have very different numbers needed to test in mind, hence their apparently irreconcilable differences.

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1 Yamey G, Wilkes M. The PSA storm. *BMJ* 2002;324:431. (16 February.)
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Summary of responses

EDITOR—The *BMJ* received 34 letters from 31 people responding to three articles discussing screening for prostate cancer and a debate on bmj.com[1–4] Responses included 11 from patients with prostate cancer, or their relatives, another 11 from doctors and other healthcare professionals, and five from patients' groups (including three from the same author).

Seven respondents supported Yamey and Wilkes's views; one even described them as courageous. Seventeen respondents opposed them. The rest were neutral. Only two responses came from urologists or their professional bodies. One of these was from Germany, the other from the American Urological Association and the American Foundation for Urologic Disease. Both supported screening with fully informed consent.

This correspondence illustrates clearly the gulf between men's experience of screening for prostate cancer (those that wrote in were overwhelmingly positive), and the evidence from research (decidedly unclear). In these letters, the gulf is filled with anecdote, opinion, dogma, and mud slinging. Only four respondents cited any research to substantiate their arguments.

Six letters commented on the high temperature of the screening debate, five blaming Yamey and Wilkes for their inflammatory style. It was, they said, tabloid, paternalistic, demonising, unbalanced, and distorted. The sixth, from Anne Peticolas, a systems programmer from Austin, Texas, blamed the emotional impact of the word cancer. "If strong emotions evoked by the word cancer were not involved, men considering an exactly similar condition might [at least] be able to comprehend, as many obviously cannot, how a rational person could think screening inadvisable," she wrote. A general practitioner from London, Malcolm Grant, commented that all this emotion seems odd to Europeans, who accept that caution is required until better evidence is available.

A third of the responses were from people with personal experiences of prostate cancer. They were well informed consumers who acknowledged professional uncertainty about screening. All but one of them supported it. Many described themselves as "survivors" and felt lucky to be alive after ad hoc screening picked up their cancer. The common theme was that men should be able to make up their own minds about screening, and be screened without prejudice if they wanted it. All that men need from doctors is accurate, up to date information, not paternalistic interference with their legitimate right to health awareness. Only one of these 11 letters criticised the screening test for prostate specific antigen (PSA). Geraint Lewis, an anaesthetist from Ottawa, wrote that his father nearly died after the prostatic biopsy that followed a positive PSA test. The biopsy result was negative.

Some respondents saw an attack on screening for prostate cancer as an attack on men, or at least a further setback in the campaign to encourage reluctant men to take better care of themselves. Others felt the debate on screening for prostate cancer is just a small part of the wider, and entirely political, debate on screening in general.

Finally, two people wrote in to celebrate a US culture of free speech that allows such a loud and vigorous public response to a published article. "Freedom of speech [in the United States] remains alive and well," wrote Ron Davis, director of the Center for Health Promotion and Disease Prevention in Detroit. "It is precisely that freedom that permits people to attack Yamey and Wilkes and call for their dismissal. If their

employers fire them, however, or attempt to control what they write, then and only then should we worry."

Alison Tonks *freelance medical editor, Bristol*

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3 Yamey G, Wilkes M. The PSA storm. *BMJ* 2002;324:431. (16 February.)
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MMR uptake data are unlikely to be subject to manipulation

EDITOR—Scanlon suggested that uptake of measles, mumps, and rubella (MMR) vaccine is lower than reported because of manipulation of target groups by general practitioners.[1] The figure of 84% quoted, however, comes from the national "coverage of vaccination evaluated rapidly" scheme.[2] These data derive from computerised child health registers in each health authority and not from target payments.[3]

The denominator includes all children who are resident on the last day of each quarter, regardless of whether they are registered with a general practice. Children are entered on to the system at birth (from the statutory birth notification) and on movement into the area, usually by the health visitor. The numerator is the number of those children who had received the vaccine by their second birthday.

Vaccination coverage according to this scheme is lower than data derived from target payments because of the inclusion of unregistered children; because of the failure to remove children who move out of the area; and because data on vaccines given are sometimes not returned. (This may happen because the vaccination has been given at a time other than the scheduled appointment, at another clinic, or in private practice or because the practice has refused to return information.)

In 1997 we reviewed eight unpublished audits of data held on the child health systems. The audits suggested that our data underestimate true uptake by between 1% and 9% in children assessed before their third birthdays. The greatest underestimates were in districts with low coverage and high population mobility.

Although the child health systems tend to underestimate vaccine coverage, the scheme has advantages over target payment data. Quarterly evaluation of uptake for each antigen at exactly 1, 2, and 5 years reflects coverage according to the recommended schedule rather than the less timely definitions in the target payment system. The data are therefore available for monitoring trends in coverage with time and comparing the differences between antigens.[4] The latest data show that uptake of measles, mumps, and rubella vaccine at age 2 has declined by around 8% since 1995 and is about 10% lower than uptake of other primary vaccinations.[2]

Ongoing changes in primary care are likely to weaken the role of target payments as performance indicators. Coverage data will be available from the child health systems and should be used for performance management and for public health. Primary care teams need to work with immunisation coordinators and community paediatricians to ensure that during the changes this important source of information is not lost.

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1 Scanlon TJ. MMR vaccine uptake may be lower than reported because of manipulation of target groups. *BMJ* 2002;324:733. (23 March.)
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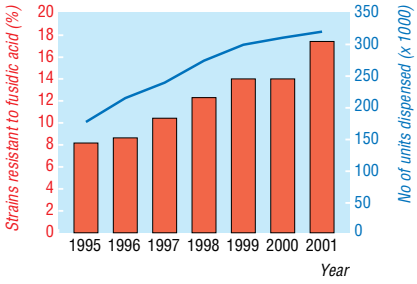
Fusidic acid cream for impetigo

Fusidic acid should be used with restraint

EDITOR—Koning et al report the results of a clinical trial that showed the efficacy of topical fusidic acid as treatment of patients with impetigo.[1] This agent has been recommended by the Dutch College of General Practitioners as the treatment of choice in patients with this infection. Koning et al observed that none of the pretreatment isolates of *Staphylococcus aureus* was resistant to fusidic acid and concluded that many years of use of topical fusidic acid has not resulted in appreciable resistance in staphylococci in the general population.

These findings illustrate one of the problems surrounding antimicrobial resistance—namely, that patterns of resistance in one country cannot be extrapolated to those in another. Specifically, data for resistance rates to fusidic acid among *S aureus* isolates in the United Kingdom differ markedly from those in the Netherlands. In a survey of 28 centres in the United Kingdom the incidence of resistance to fusidic acid among *S aureus* isolates from the community (excluding strains of methicillin resistant *S aureus*, which, by their clonal nature, might distort the data) increased from 8.1% in 1995 to 17.3% in 2001 (figure) (R Wise, unpublished data).[2] A similar study carried out in Bristol showed an approximately twofold increase in resistance rates (from 6% to 11.5%) among methicillin susceptible *S aureus* strains isolated between 1998 and 2001.[3]

The figure also shows that between 1995 and 2001 the number of prescriptions of fusidic acid in the United Kingdom (expressed as total units dispensed and accounted for almost entirely by the topical formulation) nearly doubled (data supplied by Leo Pharmaceuticals).



Annual rates of resistance to fusidic acid among isolates of Staphylococcus aureus, with numbers of prescriptions for fusidic acid

We cannot explain why the Dutch experience does not mirror our own, although Koning et al have not specified the technique they used to determine the susceptibilities of their isolates, nor have they provided information about the susceptibilities to fusidic acid of any isolates after treatment. A further confounding factor could be the small number of isolates tested (67 strains); evaluating a larger, and therefore more representative, sample might yield a different pattern of resistance.

We do not dispute the efficacy of topical fusidic acid as treatment of patients with impetigo and other superficial skin infections. But fusidic acid is a very valuable drug that is also administered systemically in combination with another antistaphylococcal antibiotic, usually flucloxacillin, as treatment of patients with severe staphylococcal infections. Rates of resistance to this agent among *S aureus* isolates are increasing in the United Kingdom, directly in line with usage, and we are concerned that further increases in the prescribing of topical fusidic acid will result in even higher levels of resistance. The price of continuing to administer the drug in this way will, in the long term, be the loss of the therapeutic efficacies of both the topical and systemic formulations, and we urge restraint, particularly among general practitioners and dermatologists.

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2 Andrews J, Ashby J, Jevons G, Marshall T, Lines N, Wise R. A comparison of antimicrobial resistance rates in Gram-positive pathogens isolated in the UK from October 1996 to January 1997 and October 1997 to January 1998. *J Antimicrob Chemother* 2000;45:285-93.
3 Brown EM, Thomas P. Fusidic acid resistance in Staphylococcus aureus isolates. *Lancet* 2002;359 (in press).

Judicious use is advisable

EDITOR—Koning et al compared topical fusidic acid cream with placebo in 160 children with impetigo and found no resistance

Fusidic acid resistance in *Staphylococcus aureus* isolates in Addenbrooke's Hospital, 2000-1

Source	2000		2001		Total No (%) resistant
	No of isolates	No (%) resistant	No of isolates	No (%) resistant	
Dermatology outpatients (wound)	332	112 (33.7)	311	105 (33.8)	217 (33.7)
Community patients (wound)	1847	327 (17.7)	2038	377 (18.5)	704 (18.1)
Hospital inpatients:					
Wound	2157	164 (7.6)	2397	151 (6.3)	315 (6.9)
Blood	278	10 (3.6)	327	18 (5.5)	28 (4.6)
Total	4614	613 (12.8)	5073	651 (12.8)	1264 (13)

to fusidic acid in *Staphylococcus aureus* isolates from 135 children.[1] We believe that resistance to fusidic acid is underrecognised and widespread use of topical treatment may lead to an increase in resistance.

Resistance rates to fusidic acid of 1.8-9.8% have been reported in the United Kingdom in the past decade, higher rates being associated with chronic skin infections.[2–4] We reviewed resistance to fusidic acid for all *S aureus* isolates obtained from blood and wound cultures at this hospital during 2000 and 2001. Susceptibility was determined by the disc method of the British Society for Antimicrobial Chemotherapy.[5]

Higher rates were seen among isolates from dermatology outpatients (33.7%) and patients from the community (18.1%) compared with isolates from blood cultures (4.6%) and hospital inpatients (6.9%) (table). These differences may partly explain the variation in reported rates of resistance in different studies. We found no significant difference between resistance rates in 2000 and 2001.

Resistance varied with age among dermatology outpatients (59% in 114 patients ⩽20 years old, 32% in 155 patients aged 21-49, and 21% in 101 patients ⩾50). The increased resistance in younger patients is probably related to their greater likelihood of being treated with topical fusidic acid for chronically infected eczema.

Koning et al described 10 isolates (7%) as being of intermediate susceptibility, although they did not define intermediate or state the method of susceptibility testing. The disc susceptibility method does not distinguish between intermediate and resistant categories, all isolates with a minimum inhibitory concentration ⩾2 mg/l being reported resistant. We determined minimum inhibitory concentrations for fusidic acid by an agar dilution method for 92 consecutive isolates resistant to fusidic acid by the disc method. Eighty six (94%) of the isolates had values in the range 2-16 mg/l and might have been reported as either resistant or intermediate by other methods. Six (7%) had higher values (32 to >128 mg/l). Given the high concentrations of fusidic acid achieved in topical treatment, the clinical importance of isolates with lower levels of resistance is uncertain. We know of no data relating degree of resistance to treatment outcome.

In combination with other antibiotics, fusidic acid remains a useful systemic antibiotic for the treatment of severe staphylococcal infections, including those caused by methicillin resistant strains. Judicious use of topical fusidic acid is advisable, particularly in dermatology practice and the community.

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4 Ravenscroft JC, Layton A, Barnham M. Observations on high levels of fusidic acid resistant Staphylococcus aureus in Harrogate, North Yorkshire, UK. *Clin Exper Dermatol* 2000;25:327-30.
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Emergence of resistance to fusidic acid limits its use

Editor—Koning et al compared the efficacy of topical fusidic acid cream and povidone iodine shampoo with the combination of placebo and povidone iodine shampoo in the treatment of impetigo.[1] As we have found in Nottingham, *Staphylococcus aureus* rather than *S pyogenes* is the main pathogen isolated, but whereas no resistance to fusidic acid was found in the Dutch study, this is not our current experience.

In Nottingham the topical use of fusidic acid cream alone or in combination with topical steroids for impetigo and eczema has increased, but this has been associated with a rise in the rate of resistance to fusidic acid in *S aureus* isolates, particularly from cases of impetigo. Over the past three years we have consistently found significantly higher rates of fusidic acid resistance among community isolates of *S aureus* compared with hospital strains (table), in complete contrast to the situation with methicillin resistant *S aureus*. Resistance has been associated with failure of treatment and subsequent clusters of cases. This has led us to change our advice for the treatment of impetigo, for which we now locally recommend oral antistaphylococcal agents for all but very mild cases.

Percentages of *Staphylococcus aureus* isolates resistant to fusidic acid in Nottingham, 1998-2001

Year	Hospital isolates	Community isolates
1998	10.0	10.9
1999	10.7	14.7
2000	9.0	14.6
2001*	9.7	13.9

*Up to 31 August.

We caution against excessive use of topical fusidic acid with active monitoring for the emergence of resistance in the Netherlands. In the United Kingdom topical fusidic acid can no longer be relied on for the treatment and reduction of infectivity of impetigo.

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Problem may be clinically important

Editor—Koning et al assert that topical fusidic acid is effective when used in combination with povidone iodine for the treatment of non-bullous impetigo.[1] They isolated no *Staphylococcus aureus* strain classified as resistant to fusidic acid up to 28 days after treatment. They advocated the use of topical fusidic acid as the first choice drug for the treatment of impetigo in general practice.

Although the incidence of resistance to fusidic acid resistance among *S aureus* generally remains low, it has long been recognised that the use of fusidic acid may lead to the emergence of resistance to this agent in previously susceptible strains.[2 3] A recent investigation into fusidic acid resistant *S aureus* isolates in Harrogate, North Yorkshire, postulated a link with topical use of fusidic acid.[4]

We analysed the sensitivity pattern of all 5093 isolates of *S aureus* cultured from swabs labelled "wound" or "skin" over one year (29 January 2001 to 28 January 2002) in the microbiology department at Leeds General Infirmary. The swabs were taken from patients admitted to hospital and patients seen in the outpatient and accident and emergency departments. Susceptibility to fusidic acid was determined on the basis of disc diffusion testing. We found a significant association between resistance to fusidic acid and swabs taken in the

Patients with one or more skin or wound swabs positive for *Staphylococcus aureus*. Values are numbers (percentages) of patients with resistance to various antibiotics

	Fusidic acid	Methicillin	Erythromyci n	Gentamicin	Penicillin
Total (n=1709)	212 (12.4)	512 (30.0)	563 (32.9)	12 (0.7)	1545 (90.4)
Dermatology ward or clinic (n=220)	80 (36)*	16 (7)	49 (22)	2 (1)	193 (88)
Accident and emergency (n=143)	21 (15)	8 (6)	25 (18)	0	115 (80)
Children under 12 years	65 (29)*	7 (3)	34 (15)	0	204 (90)
Eczema or impetigo (n=61)	39 (64)*	1 (2)	16 (26)	0	59 (97)
Impetigo (n=10)	9 (90)	0	1 (10)	0	9 (90)
Accident and emergency (n=25)	11 (44)*	0	3 (12)	0	20 (80)

*P<0.001 in χ^2 test.

dermatology ward and clinic, which was found neither for other units nor for the other antibiotics analysed (table). The proportion of strains resistant to other antibiotics was smaller among dermatology patients than for patients analysed overall.

The paediatric patients were not exempt from this finding. Patients younger than 12 years were significantly more likely to carry fusidic acid resistant *S aureus*, even in the primary care setting of accident and emergency. This result was particularly marked in patients whose clinical details included infected eczema or impetigo and swabs taken in the dermatology clinic (data not shown).

The pharmacy department at Leeds General Infirmary confirmed that the dermatologists are the only clinicians regularly using topical fusidic acid. High rates of resistance to fusidic acid have been seen in other dermatology wards, where patient to patient transmission has been implicated.[2 4] But in this analysis, as both inpatients and outpatients of all ages were included, extensive cross infection with a limited number of strains resistant to fusidic acid seems unlikely.

Acute treatment of a first episode of impetigo in the absence of chronic skin disease may be successful, but it would be prudent to be wary of relying on topical fusidic acid for the treatment of impetigo in other settings, at least without microbiological confirmation of susceptibility.

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1 Koning S, van Suijlekom-Smit LWA, Nouwen JL, Verduin CM, Bernsen RMD, Oranje AP, et al. Fusidic acid cream in the treatment of impetigo in general practice: double blind randomised placebo controlled trial. *BMJ* 2001;324:203-6. (26 January.)
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Resistance trends must be monitored

Editor—The study by Koning et al shows the effectiveness of topical fusidic acid for impetigo in a country where resistance of *Staphylococcus aureus* to this agent is still low.[1] Resistance arises readily, however, and we wish to bring your attention to the trend we are seeing.[2 3] Resistance rates for isolates of *S aureus* from both hospital and community and corrected for duplicates have risen from 5% in 1995 to 17% in 2001. The resistance rate was 9% in 1996, 8% in 1997, 11% in 1998, 15% in 1999, and 15% in 2000.

The usefulness of topical fusidic acid is threatened by this development, which may itself be a result of the widespread use of these preparations. The usefulness of systemic fusidic acid, crucial for treating bone infections and against methicillin resistant strains, is also threatened. Topical preparations of fusidic acid must be used responsibly, and resistance trends must be monitored.

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1 Koning S, van Suijlekom-Smit LWA, Nouwen JL, Verduin CM, Bernsen RMD, Oranje AP, et al. Fusidic acid cream in the treatment of impetigo in general practice: double blind randomised placebo controlled trial. *BMJ* 2001;324:203-6. (26 January.)
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Findings cannot be extrapolated

Editor—Koning et al found that fusidic acid was more effective than placebo for the treatment of staphylococcal impetigo in a sample drawn from Dutch general practitioners.[1] They went on to recommend topical fusidic acid as first line treatment for impetigo.

Our experience in Lancashire does not support the use of fusidic acid for this indication. We investigated the local epidemiology of impetigo after an outbreak that was first noted in two primary schools, in the summer of 2000. In a general practice population of 10 000, 67 patients presented with impetigo over a six month period in 2000, compared with only six over the same six month period in 1997. Between September 2000 and October 2001, *Staphylococcus aureus* was isolated from 46 patients with impetigo, of whom only two had received fusidic acid before sampling. Resistance to fusidic acid was present in 17 (37%) of these isolates.

This high level of resistance to fusidic acid contrasts sharply with the Dutch study, in which no resistance to fusidic acid was detected among *S aureus* isolated from pretreatment skin swabs. Detailed typing of a selection of 13 impetigo related isolates, with varying fusidic acid sensitivity, from seven Preston practices showed lysis by group 2 phages, a pattern typically associated with skin infection. The isolates were also indistinguishable by genotyping, and all possessed the exfoliative toxin a and b genes.

Resistance to fusidic acid among all isolates of *S aureus* from specimens submitted by general practitioners to the Preston Public Health Laboratory in 2001 was 11%. The higher rate of resistance to fusidic acid among impetigo related isolates suggests that this resistance has conferred a selective advantage on a strain with the potential to cause impetigo. This may in part account for the large increase in the incidence of impetigo recently observed. Fusidic acid is used widely in the community, not only in the treatment of impetigo but also, in combination with steroids, in the treatment of eczema. Our policy has therefore been to recommend the use of oral antibiotics such as flucloxacillin for first line treatment of impetigo and to reserve topical mupirocin for patients with just one or two lesions. While recognising the importance of the study by Koning et al of a very common condition, we should be cautious about extrapolating their recommendations to the United Kingdom, where antibiotic use is more intensive and antibiotic resistance encountered more often in *S aureus*.[2 3]

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We thank Hazel Aucken, Laboratory of Hospital Infection, Central Public Health Laboratory, for her help.

1 Koning S, van Suijlekom-Smit LWA, Nouwen JL, Verduin CM, Bernsen RMD, Oranje AP, et al. Fusidic acid cream in the treatment of impetigo in general practice: double blind randomised placebo controlled trial. *BMJ* 2001;324:203-6. (26 January.)
2 Cars O, Möllstad S, Melander A. Variation in antibiotic use in the European Union. *Lancet* 2001;357:1851-3.
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Authors' reply

Editor—Guidelines for treating impetigo may vary between countries or regions. The wish to reserve certain antibiotics for specific vital conditions, and local resistance rates, may vary and lead to different recommendations. The letters commenting on our article focus on the question of whether the use of fusidic acid cream should be promoted in the United Kingdom in light of the higher reported staphylococcal resistance rates to fusidic acid in the United Kingdom and the risk of rising resistance rates because of its use.

The main purpose of our study was to assess the effectiveness of fusidic acid cream in impetigo compared with disinfection with povidone iodine alone. The large treatment effect we found may partly be explained by the low resistance rate to fusidic acid, which was an unexpected co-finding. We used Vitek II equipment to test the susceptibility of isolates, using the guidelines of the national committee for clinical laboratory standards to categorise strains as resistant, intermediately sensitive, or sensitive, as described in the website version of our article.[1]

Brown et al are not correct in saying that we tested just 67 strains; we tested 135 strains. The low resistance rate in our study is probably related to the low antibiotic use in general by outpatients in the Netherlands and the fact that systemic fusidic acid is scarcely used in the Netherlands.[2] It is not used as the first or second choice systemic antibiotic for complicated staphylococcal infections. But topical fusidic acid has been the first choice antibiotic in the Dutch general practitioners' guideline for several years now, and its short term use has apparently not led to a significant resistance rate in *Staphylococcus aureus* causing impetigo in the Netherlands.

Resistance rates may vary between countries. One should be cautious, however, in comparing resistance rates from different samples. High staphylococcal resistance rates from dermatology ward patients may be due to chronic use of fusidic acid cream in patients with infected eczema. Furthermore, even a laboratory sample from patients seen in general practice cannot easily be compared with our sample. We took swabs from all patients with impetigo who consulted their general practitioner, whereas general practitioners do not take bacterial swabs as a routine. A laboratory sample from a general practice is therefore a selected sample of worse or treatment resistant cases. Data from seven Dutch public health laboratories, reflecting both hospital and primary care patients, show a resistance rate to fusidic acid in staphylococci that has slowly risen since 1989-95 and was 4.6% in 2001 (personal communication, A J de Neeling).[3] This shows the same trend as the data mentioned in the letters, but at a lower level.

The high resistance rate to fusidic acid in *S aureus* isolates from primary care patients in the impetigo outbreak in Preston reported by Cheesbrough may not be considered representative for all *S aureus* causing impetigo, as the strains from this specific outbreak are likely to be clonally related. It does, however, show the importance of bacteriological determination and assessment of resistance, also in general practice and especially in case of an epidemic. Moreover, regional and national monitoring of trends in antibiotic drug resistance remains very important.

Excessive and chronic use of an antibiotic will lead to an increase in resistance. But, as Brown et al apparently agree, excessive use of other local treatments such as mupirocin or oral antistaphylococcal agents such as flucloxacillin will similarly promote resistance to the concerned antibiotic.[3] We therefore recommend a responsible use of fusidic acid cream, as is true for any other topical or oral antibiotic, following current regional policies.

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1 Cars O, Möllstad S, Melander A. Variation in antibiotic use in the European Union. *Lancet* 2001;357:1851-3.
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3 Brown EM, Thomas P. Fusidic acid resistance in Staphylococcus aureus isolates. *Lancet* 2002;359:803.

Eye drops and patches both in fact work for amblyopia

Editor—I am the protocol chairman of the amblyopia treatment study, the results of which were cited in Josefson's news article.[1] The report from our study group in the *Archives of Ophthalmology* did not conclude that any treatment was superior for the types of amblyopia that we studied, although Josefson's article suggests otherwise. Rather, we concluded that both atropine eye drops and patches work.

These important treatments differ both medically and socially, so doctors and parents need to discuss the case and then decide which treatment would be best for their patient or child.

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1 Josefson D. News extra: Eye drops are better for amblyopia than patches, says study. *BMJ* 2002;324. bmj.com/cgi/content/full/324/7339/698/c

The power of shame

Behaviour should be distinguished from identity

Editor—Davidoff's editorial graphically illustrates the power of shame, saying that "it goes right to the core of a person's identity.[1] There is another way of seeing this, derived from the work of Dilts et al and Hall on logical levels.[2 3]

Dilts et al see the human brain as working in hierarchies, starting at the level of environment (where?), moving up to behaviour (what?), capabilities (how?), values (criteria), beliefs (why?), identity (who?), and beyond this to spirituality or connectedness to other people and the bigger world. Each level modulates the expression of the lower levels. Generally, change at a higher level results in bigger changes in behaviour than do changes at a lower level. Our behaviour in the world is an expression of our beliefs about ourselves.

Mixing up levels leads to problems. As Davidoff's example showed, the physicians prescribing tolbutamide had mixed up their behaviour (prescribing tolbutamide) with their identity (making a false equivalence between their behaviour in prescribing and who they are as people). If the problem had been seen simply at the level of behaviour a change in prescribing practice would have been no great event in anyone's life. It would simply have been implementing new knowledge (beliefs) at the level of prescribing behaviour. People's identity would not even have been challenged.

How much easier life is, at both personal and organisational levels, when we learn to deal with information at the right level. The churches for many years have had an approach of "hate the sin and love the sinner." How would it be if we could bring this approach into medicine and its regulation?

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1 Davidoff F Shame, the elephant in the room. *BMJ* 2002;324:623-4. (16 March.)
2 Dilts RB, Dilts RW, Epstein T. *Tools for dreamers: strategies for creativity and the structure of innovation.* Cupertino, CA: Meta Publications, 1991.
3 Hall LM. How meta-states enriches logical levels in NLP. www.neurosemantics.com/Articles/MS_In_Logical_Levels.htm.

Patients' perspective is also important

Editor—Davidoff's editorial examines the issue of shame mainly from the perspective of a service provider.[1] Highlighting the improvements necessary to improve the safety and quality of medical care, it states that countering shame can motivate healthcare providers to learn and improve, bolstering their competence and their sense of self worth and leading to better service provision.

The issue of shame must also be examined from a patient's perspective. A topical example is the national strategy for sexual health and HIV.[2] This addresses a worrying increase in both the incidence and prevalence of sexually transmitted infections, particularly among young adults and teenagers. Many people still consider sexually transmitted infections to be a moral issue, with the resultant negative attitudes towards cases persisting even among healthcare providers.

This increases the stigma and shame that patients with sexually transmitted infections feel when talking about their problem. Patients find it hard to talk about their sexual health, and initiatives targeted at primary care, such as update courses on taking a sexual history, are to be applauded. It is embarrassment and shame that prevent

patients from seeking help from available services. These feelings may also lead to patients being reluctant to inform their sexual contacts because of the shame of admitting that the source of infection may have been outside an established relationship.

The message that all services for sexually transmitted infections are confidential needs to be emphasised, particularly among schoolchildren, teenagers, and young adults. Victims of sexual assault with or without alcohol intoxication are in a special category; they have been both physically and emotionally traumatised and suffer fear and shame. Emergency services and law enforcement agencies have mechanisms built into their systems to deal with these issues, but victims do not always present to them first. Concerns about sexually transmitted infections need to be dealt with sensitively.

Communication must be improved between parents and their children and with sexual partners, school nurses, and students. General practitioners should be seen as a first point of contact between the patients and services; this is key to scaring off this elephant that patients inevitably carry around with them.

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2 Department of Health. *The national strategy for sexual health and HIV*. London: DoH, 2001.

Clinical quality should be put at the centre of care

Editor—The multiplicity of recommendations of the non-medical report into the performance failures of the heart surgeons at Bristol Royal Infirmary[1] prompts Coulter to repeat the slogan "put patients at the centre."[2] The primary issue—that of poor clinical practice going unchecked—has again been obfuscated. The failure of clinical self regulation caused the serial disasters at Bristol; smothering this uncomfortable truth risks its remedy.

Coulter says that openness and empathy should be shown to patients after medical errors have occurred. Alas, the problem of getting doctors to admit that an error has occurred is more pressing. The notion that all doctors will now openly divulge their error, even if aware of it, is unlikely. Motorists seldom drive to police stations and confess to bad driving, so when their bad driving is seen they are stopped and the transgression brought to their notice. Processions of disasters such as occurred at Bristol show that currently there is no method of preventing them from happening. Until medical errors are promptly identified to the profession, talk of openness afterwards is meaningless.

Coulter floats another flimsy proposal: "improving communication with patients." Many cases of bad clinical practice have shown that the offender was actually a skilful (or wily) communicator. Patients will tolerate a doctor's social inadequacy or even poor outcome if they believe that reasonable professional competence prevails and clinical rudiments are not neglected. Their only assurance would be a strong system of clinical accountability for all doctors.

Coulter invokes the peculiar view that "by involving patients, doctors could reduce the incidence of medical errors," as though patients were not already involved, both as patients and with a complaints system. Neither of these, though, is proof against bad practice.

If copies of all complaints and their written medical responses were seen by an independent medical inspector who when necessary could examine medical records, the resulting increased attention by doctors would make them clinically accountable.[3] It would also simultaneously solve the unfashionable issue of patient accountability.[3 4] Poor medicine, the expense of litigation, and the costs of patients' unrealistic expectations would all decline.

Patients would happily vacate a place "at the centre" if instead clinical quality was impartially and effectively enforced. A body devoted to this end that could take their place must be set up.

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1 Bristol Royal Infirmary Inquiry. *Learning from Bristol: the report of the public inquiry into children's heart surgery at the Bristol Royal Infirmary 1984-1995*. London: Stationery Office, 2001.
2 Coulter A. After Bristol: putting patients in the centre. *BMJ* 2002;324:648-51. (16 March.)
3 Pickering WG. An independent medical inspectorate. In: Gladstone D, ed. *Regulating doctors*. London: Institute for the Study of Civil Society, 2000:47-63.
4 Pickering WG. How to control the misuse of the health services. *BMJ* 1996;313:1408-9.

Declining altruism in medicine

Good service is voluntary

Editor—In his editorial Jones described the decline of altruism in medicine.[1] As Claire Luce Booth—a congresswoman, ambassador, playwright, socialite, and wife of American magazine magnate Henry R Luce—noted, "No good deed goes unpunished."[2] Business authors have described that individuals in the employ of service industries (such as medicine) have two levels of service to offer. The most basic level of service is the performance of specified duties only, just enough to avoid being fired and nothing more. All the rest is "volunteer" work: going the extra mile for patients, doing more than you have to do, including doing some of it for free, are all efforts in excess of that which can be compelled by a job description. Love of one's work and patients begets such volunteering. Such is the way of altruism.

When volunteerism declines in any service industry, the blame falls on the work environment. As doctors learn that there is little or no emotional or financial reward for voluntary addenda to patient care and that such behaviours may actually be punished, the natural tendency is to work to the rule. Only that which is required gets performed. Punishment of physicians is indeed effective, but the results are not those intended by administrators, lawyers, and regulators.

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1 Jones R. Declining altruism in medicine. *BMJ* 2002;324:624-5. (16 March.)
2 Winokur J, ed. *The portable curmudgeon*. New York: New American Library, 1987:123.

Altruism is not equal to self sacrifice

Editor—Jones believes that altruism is on the decline, and he cites as one example, among several, the recent explicit choices now made by young doctors in balancing professional and domestic commitments.[1] The example is ill chosen.

Firstly, is making choices explicitly less altruistic than making such choices implicitly?

Secondly, does he believe that for physicians to consider their own well being as well as the well being of their spouses and children must directly interfere with the performance of cooperative unselfish acts beneficial to others? Given the altruistic nature of parenting such decisions are arguably an alternative form of altruism.

He should take a closer look at the average age of doctors who are members of the Nobel Prize winning group Médecins Sans Frontières, most of whom I suspect are from Generation X. In putting forward a generational explanation for declining altruism he runs the risk of alienating these doctors, including myself.

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Correction

Recombinant human parathyroid hormone

An editorial error occurred in the author's reply by Jonathan Reeve (18 May, p 1218). "Verbatim" was incorrectly used instead of "hearsay" in the first sentence. The sentence should have read: "Kuijpers et al are right to correct my editorial, which left my desk on 13 September 2001, when I was still relying on hearsay [not verbatim] accounts of the Food and Drug Administration's hearing."