preventive care; the health visitor with immunizations, the health-care nurse with well-person clinics and the practice nurse with routine visits to the elderly. Each accepts responsibility for maintaining the relevant computer data.

The regular appearance of the month's audit figures is a source of interest and comment. Although the results seldom approach 100% we are each made aware of areas needing attention and this is the purpose and stimulus of audit.

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Screening for tuberculosis — a possible transmission route of HIV

Sir.

In a previous letter I pointed out that government policy should call for a ban on multi-use needles in medical and alternative practices as this was a possible source of transmission of the AIDS virus. It would appear that locally and probably nationally the screening for tuberculosis among our school populations is carried out using the standard Heaf test. The gun used for delivering the tuberculin antigen into the skin is sterilized between each administration by dipping the head in methylated spirits and then passing it through a flame. Clearly the quality control of this form of sterilization is questionable and any unkilled organisms, be they bacterial or viral, such as hepatitis B or human immunodeficiency virus (HIV), could be transmitted from one person to another. This practice should be abolished and all future screening for tuberculosis should either be done via Mantoux testing with disposable needles or using disposable heads on the Heaf testing equipment. Only in this way can we eliminate the possibility of this mode of transmission.

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Reference

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Caring for AIDS — GPs must act now

Sir,

I was a delegate at the recent conference 'Caring for AIDS — a multidisciplinary approach'. Over three days I heard 44 papers and attended one workshop. Though a few general practitioners spoke from the floor, and our President spoke from the chair, general practice was, by

and large, ignored at this important conference. Indeed, it was hard to believe at times that the AIDS sufferers, intravenous drug abusrs, haemophiliacs, their sexual partners and families and so on have, or at least ought to have, a general practitioner.

There were six simultaneous workshops, and as none was explicitly for general practitioners I had a choice of three, believing myself to be a mixture of medical staff, community worker and counsellor. I opted to attend the workshop for counsellors where I heard psychiatrists, psychologists and health visitors complain bitterly of the difficulties of coping with all the uncertainty surrounding AIDS and human immunodeficiency virus (HIV) infection and of the tremendous burden imposed by the so-called 'worried well'. There were also a few snipes at the despicable behaviour of some general practitioners. Yet we in general practice surely have more experience of uncertainty and the 'worried well' than anyone. We have not yet been asked, nor have we yet volunteered, to help these relative novices in these fields.

Throughout the conference it was stressed how the appearance of AIDS was lifting the lid off many issues in our society. That such a conference can virtually ignore general practice has, for me, lifted the lid off many issues relating to the place of our discipline in society. Jenner, Levi and Houghton in a recently published book on AIDS¹ state that '... patients often do not wish the hospital consultant to refer them to their GP (sic), and there is some general acceptance of this state of affairs by GPs'. This is a very sad indictment of British general practice.

Professor Drury, in a remark from the chair, did say our College was about to do something in relation to this issue. I respectfully suggest that we get a move on.

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Reference

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Diagnosing urinary tract infection

Sir,

After reading the article by Dobbs and Fleming on scoring urinary symptoms (March *Journal*, p.100) I had to check that I was not reading a journal for computer programmers.

The article, written by general practitioners in a journal for general practitioners, suggested a new diagnostic system which predicts the probability of a positive result to a laboratory test, a test which the authors themselves admit is of only limited use in the management of urinary tract infection type illness in general practice.

The system involves a complicated scoring system using a table of 78 different values for 13 symptoms and dipstick results in three separate age groups, and that is just for female patients. The authors then go on to suggest the widespread use of the system for a variety of other illnesses.

If this is where general practice is heading we are going to need a considerable increase in the number of general practitioners to use this time-consuming system, presumably aided by desk-top computers. But at least they could be trained more quickly as diagnostic skills would no longer be needed.

I believe that this sort of narrow approach is incompatible with good general practice: I certainly hope so as this is one of the reasons I moved away from hospital medicine.

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Sir.

In reply to Dr Thornton I would like to make a general point that the whole of medicine is about interpreting probability and when this can be done numerically and objectively, we tend to find advances are made. The article concerns a scoring system for interpreting probability and examines it in relation to 13 variables known to be significantly different in patients with infected urines as compared to those with no infection. Most certainly we accept that such a system has to be tested in everyday practice and that is in hand. Only then can we say whether it is workable. What is certainly true, however, is that doctors who escape from hospital should not think that general practice is an escape from objectivity.

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Serum theophylline concentration in general practice patients

Sir.

I read Dr Howard's paper on serum theophylline concentration in general practice patients (March *Journal*, p.105) with great interest.

In 1984, while a trainee in general practice, I surveyed the serum theophylline level of 20 patients. Only two had a serum theophylline concentration in the therapeutic range and, I suspected five patients of non-compliance. I attempted to increase the oral theophylline dose of the remaining 13 patients. Two were reluctant to increase their dose because of previous adverse effects with a higher dose and only four of the 11 patients who had their dose increased could tolerate it. Thus only six out of 15 patients in this survey could tolerate a therapeutic level of theophylline.

This survey clearly indicates that oral theophylline preparations are poorly tolerated in therapeutic dosage. I submit that general practitioners prescribe theophylline in subtherapeutic dosage because of the expectation that a considerable number of patients will be unable to tolerate a therapeutic dose.

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Neonatal conjunctivitis

Sir,

Dr J.A. O'Brien (Letters, February Journal, p.82) makes some interesting suggestions in his report of a case of neonatal conjunctivitis. While most of his points are entirely accurate, I feel there are some areas where clarification is necessary in order to avoid misunderstanding.

First, Dr O'Brien quite correctly says that specimens for any microbiological investigation should if possible be taken prior to the initiation of antimicrobial therapy, in this instance citing the use of chloramphenicol eyedrops as the reason for failure to identify chlamydial infection. However, chloramphenicol is not the drug of choice for chlamydial ocular infections, even though a bacteriostatic effect may be demonstrated in vitro; indeed chlamydia can be the cause of a 'sticky eye' unresponsive to chloramphenicol eye applications.1 In the neonate the treatment of choice is a topical tetracycline ointment, combined with systemic erythromycin therapy for at least two weeks. The latter addition serves several purposes — the oral therapy is easier for the patient to tolerate when up to six weeks of therapy may be necessary; ocular infection is not always eradicated by local treatment alone;² and perhaps of most importance is the prevention of respiratory tract colonization which may progress to chlamydial pneumonia.3

Secondly, I would like to comment on some of the diagnostic methods mentioned. Chlamydia culture remains the definitive method by which all others are judged — by necessity it is limited to cen-

tres that have facilities for tissue culture, and would not be available to the majority of general practitioners. Direct immunofluorescent techniques on the other hand are widely used by laboratories, and in skilled hands the incidence of false positive results is low. The ELISA test mentioned has promised to be an attractive alternative since the degree of skill needed compared with the immunofluorescent techniques is lower, but unfortunately a recent evaluation of the method concluded that it was unsuitable for routine diagnostic use at present.⁴

Finally, I should mention the process of specimen taking. As Dr O'Brien made clear, the diagnostic methods available are quite varied and it is important that the general practitioner liaise with his local laboratory prior to taking specimens so that the correct techniques are used, both in taking the specimen and transporting it to the laboratory. When examining for chlamydia, it is important to bear in mind that they are intracellular parasites, and in order to demonstrate them easily it is necessary to obtain cells for examination. In practice this usually means urethral scrapes in the male, endocervical specimens in the female, and for eye infections conjunctival scrapes (anaesthetizing the eye first if necessary).

I agree with Dr O'Brien that it is important for general practitioners to consider chlamydia infection in general practice. I would, however, request that general practitioners consult their local laboratory before embarking on extensive investigations, so that the appropriate specimens are taken and transported to the laboratory correctly.

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Predisposing factors to infective disease

Sir,

Dr Bullimore concludes in his article on predisposing factors to upper respiratory tract infection (March *Journal*, p.107) that traditional theories of causation need revision. I would suggest that they do not.

The laudable search for causative

organisms and thence 'magic bullets' has been centre stage in medical thinking for a century. Contagion accounts admirably for the illness process in many recognized infective syndromes leading to appropriate therapy. Many episodes of illness are now recognized to be the result of organisms within the system which remain inactive until, I presume, the balance between their further development and the bodily defences moves in their favour. Such organisms include Coxsackie B, herpes simplex, chickenpox, human papilloma virus and potentially many more.

A consideration of those factors widely accepted as effective prior to the availability of a definitive treatment for tuberculosis is instructive. Following transmission of the causative agent, the course of the illness very much depended upon the nature of the host's defences, varying from fulminant disease in the immune-impaired host to complete remission of the disease in the fit individual, provided this fitness was maintained. Which factors maintain 'fitness'? These are exemplified by the physical methods found in the sanitorium regimen. Advocating a balanced life-style with adequate nutrition, exercise, physical and emotional rest and sleep with avoidance of unhealthy habits is nothing new. However, these conditions rarely prevail in real life and not surprisingly ill health flourishes.

I contend that the current model of infective illness is too constrained. As for tuberculosis, models of chronic illness should encompass the spectrum of ill health. Our organism is constantly under attack and in most the balance swings towards disease with alarming regularity. I cannot prove that we do not always catch a cold or a sore throat or a spell of bronchitis yet I feel in many the disease process suggests recurrent intrinsic infection as in herpes or tuberculosis.

In our fight to target our magic bullets at offending pathogens we can easily overlook the traditional heath process which must be our constant ally.

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Health promotion

Sir,

As a general practitioner employed by a district health authority as a medical adviser in health education on a sessional basis, I was interested to receive the latest report from general practice. With the increasing interest in prevention, health