Case No	Placebo or lymecycline*	Triggering agent	HLA-B27 present	Age (years)	Highest erythrocyte sedimentation rate (mm in first h)	No of swollen joints	Low back pain
1	Placebo	Yersinia	Yes	26	103	7	Yes
2	Placebo	Yersinia	Yes	27	138	6	Yes
3	Placebo	Yersinia	Yes	39	120	1	Yes
4	Placebo	Unknown enteritis	Yes	45	117	1	Yes
5	Placebo	Chlamydia	Yes	23	12	1	Yes
6	Placebo	Chlamydia	Yes	47	110	7	Yes
7	Placebo	Chlamydia	Yes	42	57	13	Yes
8	Placebo	Chlamydia	Yes	25	113	7	Yes
9	Lymecycline	Campylobacter	Yes	41	128	2	Yes
10	Lymecycline	Unknown enteritis	Yes	30	79	6	Yes

*In combination with non-steroidal anti-inflammatory drug.

two in the lymecycline group had radiological changes ($P=0.028$ by Fisher's exact test).² The table shows the clinical characteristics of the 10 patients. Because the x ray pictures were not taken during the course of the disease according to standard protocol, the finding is only preliminary and needs to be confirmed by standard methods and in more patients.

Our recent results suggest that the possible anti-inflammatory and anticollagenolytic potential of long term treatment with tetracycline or doxycycline in combination with a non-steroidal anti-inflammatory drug is not restricted only to post-venera arthritis^{2,5} as described by Svenungsson. I agree with Svenungsson that prospective case-control studies in patients with well defined disease are needed before antibiotic treatment for reactive arthritis can be firmly recommended. I suggest that the anti-inflammatory and anticollagenolytic aspects of combined treatment with tetracycline and doxycycline with a non-steroidal anti-inflammatory and their possible role in tissue destruction and radiological changes also be taken into account when large, possibly multicentre, studies on treating reactive arthritis are being planned.

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Women consultants

EDITOR,—Julia Cumberlege refers to the part time consultant scheme as a method of encouraging NHS managers to "consider the business advantages of part time appointments." Readers might be interested in the details of the scheme: close analysis shows business disadvantages.

Firstly, the funding is restricted to three years but is not rolled over. Funding was available from 1 April 1993, but invitations to bid were structured so that candidates could not possibly be in post by that date. Our local services were invited to bid two to three months later, and the Department of Health made decisions towards the end of the

calendar year. We have now appointed someone to start next June, with only about half of the original funding currently available to us.

Secondly, in the scheme the Department of Health guarantees funding at the full level for only the first year, and it is hoped that funding will continue at the same level for whatever is left of the original three years.

Thirdly, purchasers are required to sign an undertaking to pay the subsequent costs. In practice, I suspect, budget holders will be required to make the "cost efficiency" savings our purchasers have been inflicting on us for the past three years, whereby we continue to provide the same level of service for less.

Business managers would be well advised to look carefully at the next tranche (presumably funded by the unspent money resulting from the first scheme) before committing their services to something they may not be able to afford. This apparent concession to professional women trying to combine careers and domestic commitments does not stand up well to closer scrutiny.

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- 1 Cumberlege J. Women consultants. *BMJ* 1994;308:859. (26 March.)

Cutaneous T cell lymphomas

EDITOR,—We were disappointed by the slightly negative emphasis of Paul A Bunn Jr's editorial on cutaneous T cell lymphomas.¹ Understanding of the whole range of cutaneous T cell lymphomas and their management has progressed considerably in recent years, and it is now clear that there are many variants of primary cutaneous T cell lymphoma with differences in clinical behaviour and prognosis.

We disagree with Bunn's comment that "systematic dissemination is an early feature of all types of lymphomas." In the experience of our skin tumour unit many cases of unequivocal mycosis fungoides have a benign course, and only the minority rapidly progress to systemic disease. Most patients can be maintained on photochemotherapy (treatment with psoralens and ultraviolet A) for long periods and do not need topical nitrogen mustard. The challenge is to try to determine which of the patients who present with early stage disease are likely to have an unfavourable prognosis.

We applaud Bunn's desire for increased numbers of controlled clinical trials. The European Organisation for Research and Treatment of Cancer's Cutaneous Lymphoma Project Group, of which there are histopathological and clinical sections, has been active in the past few years. A register of cutaneous lymphomas has been set up, and data from over 20 European centres are being accumulated long term. Every clinician who contributes cases has access to the computerised data

from other centres. The group is already carrying out clinical trials in mycosis fungoides, an example being a study of whether alfa-2a interferon can prolong remission that has been induced by other modalities such as psoralens and ultraviolet A. In our unit most patients with mycosis fungoides of patch and plaque stage find that their symptoms are well controlled with a combination of photochemotherapy and orthovoltage radiotherapy to individual thick cutaneous lesions.

Finally, we were disappointed that Bunn did not mention photopheresis. Since the original paper reporting encouraging results in a multicentre study was published² there has been wide experience in Europe with this technique. Although the results from many centres are not as good as those originally reported, clearly photopheresis has a useful role in the management of some forms of cutaneous T cell lymphoma, particularly erythrodermic cutaneous T cell lymphoma and the Sézary syndrome.^{3,4} These variants of cutaneous T cell lymphoma can be particularly aggressive, and there is no reliably effective alternative treatment.

The recent founding of the International Society for the Study of Cutaneous Lymphomas, which has a large proportion of members from Europe, should permit important research and carefully controlled clinical trials in this challenging group of disorders.

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- 1 Bunn PA. Cutaneous T cell lymphomas. *BMJ* 1994;308:551-2. (26 February.)
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Original description of Kaposi's sarcoma

EDITOR,—Kaposi's original description of a new skin tumour, which now bears his name,¹ is remarkably similar to Jonathan Weber's reminiscence.² Kaposi was an internationally respected dermatologist, recognised for his keen eye and careful observations; he is credited with the first description of xeroderma pigmentosum.³ He reported on five patients, all men, from the corners of the Habsburg empire, and also on a Swiss boy.¹ He made no comments about their sexual orientation.

In his paper Kaposi repeatedly emphasised that this new disease was incurable and rapidly lethal. He wrote that: "Die Krankheit führt zum Tode, und zwar innerhalb einer kurzen Frist von 2-3 Jahren . . . Die Krankheit muss nach den vorliegenden Erfahrungen von vornherein nicht nur als unheilbar, sondern auch als lethal gelten." [The disease leads to death and it does so within the short span of two to three years . . . The disease must, according to our existing experiences, be considered a priori not only incurable but also lethal.] Indeed, three of the patients were dead within 12 to 16 months of presentation. On the basis of postmortem findings of characteristic lesions everywhere—not only on the limbs, trunk, and face but also throughout the gastrointestinal tract and in the liver—Kaposi also proposed that

the disorder was disseminated from the outset rather than a local tumour that later metastasised: "muss für dieses Übel eine bereits von Anfang her vorhandene allgemeine Erkrankung (Dyskrasie) angenommen werden." [(One) must postulate, for this scourge, that there is a generalised disease (dyscrasia) pre-existing from the beginning.]

Over the years the definition of the disorder that Kaposi described changed. Kaposi's sarcoma became regarded as a low grade malignancy, with frequent cases of spontaneous remission.⁴ By 1953 only 500 cases had been described in Europe and North America, but then it was found to be a common tumour in equatorial tropical Africa, where it was described as aggressive with a male to female ratio of 10-15:1.⁴

It is not obvious why the criteria for diagnosing Kaposi's disease changed. The question "Did Moriz Kaposi describe AIDS in 1872?" belongs in the annals of medical history.⁵ Nevertheless, determining whether a disease has arisen recently or not is of epidemiological interest. For example, Burkitt has related how, when he was studying the African childhood lymphoma that bears his name, he was able to refer to notes and drawings made by a missionary surgeon 50 years earlier.⁶ Thus Burkitt was able to deduce that this lymphoma was not a new disorder. Understanding why the disease that Kaposi described did not become widespread a century ago may help the management of AIDS today.

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Sample size

EDITOR,—J Martin Bland and Douglas G Altman provide refreshing insight into a statistical trap for the unwary.¹ They point out that in estimations of the correlation between measurements the sample size is usually the number of subjects, not the number of measurements. How bad the error is depends on whether the variability in observations on different subjects is much greater than the variability in observations on one subject. The solution is clear only at the extreme ends of this range of error.

At one end of this range there is no difference between the intersubject variability and the intrasubject variability. For example, one person throwing a fair die 10 times is the same as 10 people throwing a fair die once. Here the number of measurements, or throws, is indeed the sample size. At the other end of the range, take 100 people and measure their height. Then take the person who happened to be just taller than 70 of them and measure his or her height 50 times. Here, it would obviously be inappropriate to use a sample size of 50 and claim that this person was unlikely to have come from the population of 100. The correct sample size is one.

Medical measurements are often made on the same subject over time. For example, measurements of weight and glycated haemoglobin concentration in diabetic subjects may be made repeatedly over several years. Each may vary considerably within one subject, but there will be even more

variation among subjects. What is the sample size here? To use the number of subjects would mean discarding many useful data, like accepting only one throw of a die if there is only one person throwing it. On the other hand, using the number of measurements as the sample size gives rise to the error shown by Bland and Altman. No doubt there is a professional answer to this problem, and I would be grateful to hear it.

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- 1 Bland JM, Altman DG. Correlation, regression, and repeated data. *BMJ* 1994;308:896. (2 April.)

Privatisation of pathology services

Trust hospital exonerated by district auditor

EDITOR,—The article concerning the proposal by North Hertfordshire NHS Trust to enter into a contract with a private company for the provision of pathology services referred to the complaint made by the BMA to the district auditor alleging impropriety and a failure by the trust to follow proper procedures during its tendering process.¹

We have now received the report of the district auditor on the inquiries he made into these complaints. The report shows that the complaints made by the BMA were completely without foundation and that the trust behaved properly in every respect.

I hope this letter will assist North Herts Trust in remedying the unfair and unnecessary damage done to its reputation by the making of these misleading and groundless complaints. I hope this will also encourage the BMA and other trade unions in the future, together with those who see fit to provide them with misleading information, to raise any concerns they might have about the conduct of business with their employer before going off to external sources.

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- 1 Kingman S. Trust hospital criticised for privatising pathology services. *BMJ* 1994;308:741-2. (19 March.)

Advantages are only short term

EDITOR,—As a consultant pathologist in a district general hospital that recently invited tenders for pathology services, I was interested in Sharon Kingman's news article on the Lister Hospital.¹ I wish to express some of the concerns shared by many of my colleagues in the profession.

Firstly, when NHS trust hospitals invite tenders for pathology services the private sector's bids, which are backed by larger capital resources, will seem vastly more attractive than an in house bid. Unlike the private sector, most local pathologists have to function with an annual reduction in their budgets despite a continual increase in demand.

Secondly, the bid that J S Pathology tendered for pathology services in my hospital was for a block contract over seven years, during which annual savings of about 16% were projected, with capital investment of just over £1m (perhaps as a loss leader?). After that, charges would be made for each test. After seven years the trust would be faced with the choice of setting up a pathology service from scratch or remaining dependent on the private company for the foreseeable future.

Thirdly, pathologists like myself are concerned that, even if consultants remain employed by the trust, the true employer will be the one holding the

purse strings. Privatisation will inevitably result in consultants losing some managerial control, which will reduce their ability to respond appropriately to changes in clinical need that require more money.

It is inappropriate for Mr Ewings to compare pathology laboratories with renal units. Perhaps he is unaware that in renal units the numbers of patients treated are relatively small, and treatment and care are dictated by clinical needs. Pathology, on the other hand, is a rapidly changing specialty in which laboratories vary widely in working practices and equipment and in the tests they offer, often processing several thousand samples a year. Maintaining standards and quality and meeting changing demands in clinical practice give rise to considerably greater problems in a pathology laboratory than in a renal unit.

Lastly, a word of caution to clinicians and managers. You should not be lured into believing that megacentralisation, with only minimal services available locally, will not result in considerable change in the quality of pathology services provided. Problems of transport and communication between the users and the laboratory can only worsen with megacentralisation. Selling local pathology services to a private company may indeed result in short term financial savings, but trusts must wake up to the fact that there is no such thing as a free lunch.

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- 1 Kingman S. Trust hospital criticised for privatising pathology services. *BMJ* 1994;308:741-2. (19 March.)

Friday the 13th

EDITOR,—C D O'Brien suggests that the 13th of a month is more likely to be a Friday than any other day,¹ which has possible implications for the risk of transport accidents.² O'Brien's calculations assume that the Gregorian calendar in current use has a cycle of exactly 400 years. This assumption is incorrect. In the Gregorian calendar leap days are added in years that are exactly divisible by 4 except for century years unless they are exactly divisible by 400 (thus, 2000 will be a leap year). Additionally, years that are evenly divisible by 4000 (for example, 8000 and 16000) are designated common years, when no leap day is added.³ I have calculated that 1 January 8000 will be a Saturday and that 1 January 16000 will be a Friday. Hence, rather than being 400 years the length of the Gregorian calendar cycle is $7 \times 8000 = 56\,000$ years.

The 13th of a month currently falls on a Friday 688 times per 400 years, the most of any day of the week; it occurs least often on Thursdays and Saturdays (only 684 times each).¹ My calculations indicate that if we can hang on through the current period of bad luck the good times will return. Beginning in the year 8400, and continuing for the next 8000 years, the 13th will occur on a Friday—the minimum number of times—only 684 times per 400 years.

The current Gregorian rules are sufficient to keep the calendar accurate to within one day per 20 000 years.³ I am not aware of what arrangements are in hand to add further leap day corrections at that point.

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