Rate of carriage of group A β haemolytic streptococci

EDITOR,—During the publicity last year about necrotising fasciitis the media frequently stated that 10% of the British population carry group A β haemolytic streptococci.¹ Textbooks give a figure of 5–20%.^{2,3}

We tested whether these figures apply to a rural population by taking throat swabs from 310 well people during 12 months. The mean age (37.2 years) and sex distribution (51% were male) approximated to those in the practice population as a whole. During the same period throat swabs were taken from 375 patients with upper respiratory tract infection. The swabs were taken into Allen's transport medium and reached the microbiology laboratory within five hours. With the agreement of the microbiologist a pseudo-diagnosis of an upper respiratory tract infection was given for the swabs from the well people. Group A β haemolytic streptococci were isolated from only two (0.6%) of the well people and from 36 (9.6%) of the patients with an upper respiratory tract infection. The two well people who were positive for group A β haemolytic streptococci were aged 4 and 75.

As we obtained reasonable numbers of organisms from patients with an upper respiratory tract infection our findings are unlikely to be due to faulty swab taking or poor laboratory technique. Either the figures quoted for the rate of carriage of group A β haemolytic streptococci have never applied to rural communities or the rate has decreased since previous studies. Investigation into current rates of carriage in the population of a British city would be interesting.

We thank Dr D Johnston, consultant microbiologist at Scarborough Hospital, for his cooperation.

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1 Pennington T. Quoted by Brindle D: Alert to doctors over bug. *Guardian* 1994 28 May.

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Risk for British travellers of acquiring hepatitis A

EDITOR,—The risk of non-immune British people acquiring hepatitis A during visits to endemic areas has been calculated as 0.047% per visit.¹ Current British guidelines on immunisation against hepatitis A are specific to regions—for example, protection is not considered to be necessary for travellers to Spain, Portugal, or Italy, but tourists visiting all but first class accommodation in Turkey should be protected.²

Cases of hepatitis A are routinely reported to the Public Health Laboratory Service's Communicable Diseases Surveillance Centre by laboratories in England and Wales. Information about whether the infection was acquired in Britain or abroad is provided in, on average, 29% of reports. We summarised the reported travel histories in 1471 cases acquired abroad between 1990 and 1992 by selected region or country of destination. The number of visits made by British travellers each year to each destination was provided by the international passenger survey.³ This longitudinal survey of passengers resident in Britain also provides information specific for each country, about the average duration of visits and reasons for the visits. We adjusted the number of visits by their

Incidence of hepatitis A (cases/100 000 visits/month) and relative risk by destination

Destination	1990	1991	1992	Mean for 1990-2	Risk relative to risk in France and Scandinavia
Region:					
European Union	0.1	0.2	0.1	0.1	3
Other countries in Europe	0.3	0.1	0.2	0.2	4
Eastern Europe	1	1	1	1	20
Australia and New Zealand	2	1	0	1	20
Middle East	2	9	2	4	85
Far East	4	7	4	5	102
North Africa	7	5	4	6	110
Rest of Africa	14	13	9	12	235
South America and Caribbean	9	24	4	12	243
Country:					
Scandinavia	0.1	0.0	0.1	0.0	1
France	0.1	0.1	0.0	0.1	1
Greece	0.2	0.1	0.2	0.2	4
Spain	0.2	0.3	0.2	0.2	5
Turkey	3	2	1	2	42
Mexico	24	53	16	31	612
Indian subcontinent:*					
All travellers	114	87	81	94	1835
Age < 15:					
Visiting friends and relatives	128	119	113	120	2347
Tourists or purpose of visit not known	29	11	5	15	295
Age $\geq$ 15:					
Visiting friends and relatives	64	50	52	55	1083
Tourists or on business or purpose of visit not known	66	52	53	57	1111

*Bangladesh, India, Nepal, Pakistan, Sri Lanka.

average duration (from 10 days for visits to France to 53 days for visits to the Indian subcontinent) and expressed the incidence for each destination as cases/100 000 visits/month.

As hepatitis A may be underreported, travel histories may be incomplete, and the number of passengers departing for some destinations is small, we calculated the risk of hepatitis A relative to the risks in France and Scandinavia, which we assumed to be similar to the risk across Britain. We assumed that anomalies in reporting and bias in the collection of the denominator data were consistent across destinations and over time. For the Indian subcontinent we used age specific laboratory data and proxy data on ethnic group⁴ combined with stratified data on reason for travel to estimate the risk by age and by reason of visit.

Our estimates suggest that British travellers to Greece, Spain, and Italy (8 806 068 visits in 1992) have a low risk of infection and do not require protection but that immunisation might be considered to be necessary for the smaller number of travellers to Turkey (329 053 visits in 1992). Children travelling to the Asian subcontinent are at an appreciable risk and therefore need to be protected against infection. The wide variation in incidence of hepatitis A by destination, reason for travel, and age (table) confirms the advantages of targeting advice and prophylaxis. High risk travellers need to be identified in future prospective epidemiological studies to help focus resources¹ and optimise protection.

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3 Central Statistical Office. *Business monitor; overseas travel and tourism*. London: Government Statistical Service, 1992. (MA6.)

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Cheating in medical school

Cheating continues on through career

EDITOR,—Frank J Leavitt's personal view concerns a first year medical student found cheating at Beer Sheva University.¹ As a general practitioner I would take Leavitt to task over the three examples that cause him concern about dishonesty and his fear for the medical future of this student. "Perhaps he will lie to help a patient friend to take a holiday and call it sick leave"; but all practising doctors have falsified sick notes. What does one write on the certificate when a tired mother of four is in obvious need of a rest for a few days—"washed out," "prevention of child abuse," or some similar phrase? It is far kinder and, I think, correct to write "physical fatigue" or "headache." And what about neglecting to report an infectious disease? I suppose from time to time we all do this, most probably because we do not know the exact diagnosis at the time of the consultation. Often it is only later, sometimes months later, that the diagnosis is confirmed, and I (we?) on occasions forget the official notification.

My biggest criticism of Leavitt is his last example of falsifying death certificates. In Israel, for religious and cultural reasons, postmortem examinations are extremely rare. The shortcomings of the cause of death as written on the death certificates are well known.^{2,3} Sometimes they are pure fabrication. Every doctor makes an educated guess, which he or she hopes is near to the truth when no result of a postmortem examination is available. I suggest Leavitt thinks again.

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2 Abramson JH, Sacke MI, Cahana E. Death certificate data as an indication of the presence of certain common diseases at death. *J Chronic Dis* 1971;24:417-31.

3 Slater PE, Halfon S-T, Ever-Hadani P. Death certificates in Jerusalem: sources of information about cause of death. *J R Coll Gen Pract* 1984;34:619-20.

Poor teaching may be responsible

EDITOR,—I am saddened by the tale of cheating in medical school—not by the fact of Jack's cheating but by Frank J Leavitt's reaction.¹ Why did Jack cheat? His teachers seem not to have considered