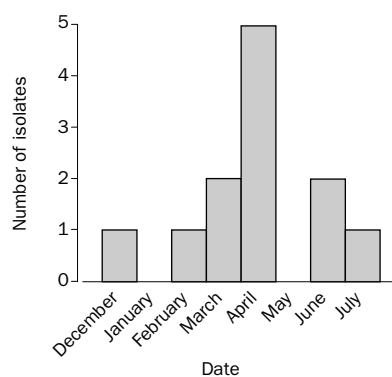




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Rate of isolation of *C. tropicalis* between December, 2001, and July, 2002

agents, fluorouracil and cyclophosphamide had been administered to all infected patients. We therefore examined sealed vials of these two drugs. We were able to grow *C. tropicalis* from the three batches of fluorouracil available in the hospital pharmacy. We informed the manufacturers of our findings and the drug was recalled across Pakistan. All patients who had received the contaminated drug are being followed up.

Routine surveillance led to the prompt control of a possible outbreak of nosocomial fungal infection in an immunocompromised population. Furthermore, iatrogenic infections across the country were prevented because of the timely withdrawal of the drug from the market.

Unfortunately, little attention is paid to infection control in developing countries. Reasons for such neglect include apparent associated high cost of surveillance, inadequate microbiological support, paucity of trained infection-control personnel, lack of hand-washing facilities, and poor quality-control measures of pharmaceutical companies.^{4,5} Moreover, absence of record keeping in drug prescribing with a non-existing patient tracking system makes it impossible to gather reliable data.⁴

Our findings reinforce the need for active and effective infection control activity and systems for notification of adverse drug events at a national level. We urge international agencies to encourage and to lend support to such programmes, particularly in countries with a primitive health-care infrastructure.

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SARS transmission: language and droplet production

Sir—Severe acute respiratory syndrome (SARS) is transmitted via droplets spread by infected individuals. Droplets are generated when patients cough and, to a lesser extent, when they talk during the early stages of disease. I believe that the efficiency of transmission of SARS by talking might be affected by the language spoken.

As of mid June, 2003, the number of probable cases of SARS in Japan remained zero, whereas there were more than 70 cases diagnosed in the USA.¹ There were about 3·1 million Japanese travellers to mainland China, Hong Kong, and Taiwan in 2000,² and about 2·3 million US citizens visited these areas in 2001.³ With such large numbers of visitors from Japan and USA, why have no Japanese visitors contracted the virus? Here, I propose a hypothesis.

The Chinese language has an aspiration/non-aspiration pronunciation system: the consonants p, t, k, q, ch, and c, when placed in front of vowels, are pronounced with a strong breath, by contrast with b, d, g, j, zh, and z. In English, but not in Japanese, p, t, and k are pronounced with a similar accompanying exhalation of breath. Furthermore, the p sound is not used as frequently in Japanese as in English. Aspiration could produce droplets.

A Chinese attendant in a souvenir shop probably speaks to American tourists in English, and to Japanese tourists in Japanese. If the shop assistant is in the early stages of SARS and has no cough, I believe American tourists would, hence, be exposed to the infectious droplets to a

greater extent than would Japanese tourists.

I thank Professors S Yabuki, Yokohama City University, and T Kohno, Otsuma Women's University, for discussions on cultural and linguistic aspects of Chinese and American people.

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Uncertainty in SARS epidemiology

Sir—Oliver Razum and colleagues (May 17, p 1739)¹ rightly describe the difficulty inherent in fitting cumulative case data for severe acute respiratory syndrome (SARS) to exponential functions and then extrapolating the resulting curve.² There are additional subtleties involved in these calculations that, if not understood, can lead to misleading conclusions.

The basic reproduction number, R_0 , is defined as the expected number of cases in the next disease generation caused by the index case in a naive population.³ This number provides a threshold criterion for an infectious agent to invade. Put simply, if R_0 is greater than 1, there are more cases in the next disease generation, and an epidemic will occur. Thus, R_0 is defined for an infectious agent in a particular population. In less formal settings, R_0 is sometimes thought of as an intrinsic property of an infectious agent.

How should one estimate R_0 for SARS? In Hong Kong, Vietnam, Thailand, Toronto, and Singapore, the first disease generation after the index case produced more than one secondary case, but in a few households, there were no secondary cases.⁴ Worldwide attention and infection control after the identification of initial cases probably reduced the number of cases per case in subsequent disease generations. Thus, the cumulative case data provide only very limited information