

nuclear weapons in this country and elsewhere: the point is that whatever one believes about that, we should spend some time and money on medical preparations in defence.

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TICKET TO AMERICA

SIR,—Dr Bick's article (Dec 24/31, p 1481) on doctors wishing to emigrate to the USA is basically accurate. Some comments are called for, however.

A J-1 visa is currently issued for the amount of time that it takes to complete residency training in a particular field or for seven years, whichever is shorter. Bick is correct, however, in observing that the visa cannot be converted to an immigrant's visa except in very special cases and that the J-1 visa holder will not be granted another visa to enter the US until he has been outside the US for two years.

It is not good advice to recommend that an applicant take any internship, planning to change to a different specialty during his second year. The first year of graduate training in the US is usually referred to as the first postgraduate year rather than as an internship. The content of that year is determined by the specialty; it may be a year of general medicine. Some programmes arrange that year of general training; others expect the resident to arrange the training himself, in which case the graduate should apply for training in internal medicine, paediatrics, or general surgery, or in a transitional year programme. Applicants should not accept appointments in another specialty unless they plan to complete training there. Visa regulations permit only one change of specialty area during training, and the visa holder should not squander that one opportunity.

The number of graduates of US medical schools has doubled in recent years, without a comparable increase in the number of residency training programmes. As a result it is now more difficult than it used to be for graduates of foreign medical schools to find residency training appointments in the US.

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KHAT-INDUCED SCHIZOPHRENIFORM PSYCHOSIS IN UK

SIR,—We read with interest Dr Kalix' letter on psychosis due to *khat* leaves (Jan 7, p 46) and wish to report the following case.

A 27-year-old man, originally from North Yemen, was admitted with a 2 week history of elation, hyperactivity, pressure of speech, diminished appetite, and poor sleep. He had paranoid delusions and ideas of reference; he believed that people were out to kill him and that people on television were laughing and talking about him. He thought that others could read his mind and he had been wielding a knife in a threatening manner. Before admission he had been chewing considerable amounts of *khat* (the fresh leaves of the plant *Catha edulis*), but denied taking any other substances. Mental state examination revealed a hostile, suspicious affect with extreme fear at times. The patient's relatives gave a history of three brief previous episodes of elation and hyperactivity which had occurred while he was chewing *khat* and which had settled spontaneously. There was no family history of psychiatric illness.

The leaves were identified as *khat* by the regional drug information centre, and a drug screen was positive for amphetamines but negative for opioids, cannabinoids, cocaine metabolites, and barbiturates. The assay used was a semiquantitative enzyme immunoassay method which may give positive results with substances other than amphetamine such as norpseudoephedrine, which is present in *khat*.¹

The patient was treated with thioridazine 300 mg daily and his symptoms disappeared within a week. The thioridazine was rapidly reduced and discontinued with no recurrence of symptoms. The patient did not experience any physical withdrawal symptoms, but absconded on several occasions in attempts to procure further supplies of *khat*.

1. Heacock RA, Forrest JE. *Khat*. *Can J Pharm Sci* 1974; **9**: 64-66.

The use of *khat* is an integral part of the culture of the people of North and South Yemen.² In the small community from North Yemen to which the patient belonged *khat* is widely used but usually produces only mild euphoria and hyperactivity. The leaf must be chewed fresh if possible, and supplies are transported by air from the Yemen, moistened and wrapped in banana leaves. *Khat* is not a banned or controlled drug in the UK although attempts are now being made to have its use legally restricted.

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SIR,—In the case to which Dr Kalix has drawn attention a North African student in the USA used *khat* grown in his flat.³ However, with the development of international air travel, leaves from the *khat* bush can be distributed throughout the world rapidly. This is important because only the fresh leaves are active stimulants.



Khat leaves and branches are transported in a banana leaf wrapping.

In South Wales there is a small Yemeni community based around several seaports including Cardiff, Newport, and Barry. *Khat* has been traditionally used in the Yemen and the habit has been sustained in Britain. It is worrying that the children of Yemeni immigrants are also skilled in its use. *Khat* is readily available and imported by air on a regular basis. Fresh leaves are wrapped in banana leaves (see figure) and may be stored in domestic deep freezers without loss of activity. The use of *khat* is likely to become more extensive as second-generation Yemenis become integrated in Western communities.

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MEASLES RATES IN URBAN AND RURAL ENVIRONMENTS

SIR,—Absence overseas explains the delay in our response to comments on our paper on age-specific occurrence of measles.⁴

Dr Hayes and colleagues (Sept 24, p 744) criticise the data collection and conclusions we drew. The urban community sampling did not take current age into account, and this will have resulted in a slight bias towards a high proportion of early cases. However, it cannot account for the difference of 71% and 27% of measles at 12 months or under in the urban and rural samples, respectively.

There is a possibility of misreporting by mothers of the ages at which measles occurred. We assume that in a sample of this size any errors will have been balanced, in that mothers will have erred in both directions. Since the outcome was unexpected, the research worker is unlikely to have caused a bias by the mode of questioning. In the main we are comparing the age-specific incidence in the urban community with that at rural health facilities. This would have favoured a bias in the opposite direction in the latter since young infants are more likely to be brought for attention than older children. Comparison cannot be made of the proportion immunised because the data for the rural sample apply only to those presenting with measles; however, the trend can be seen when comparing the periurban and rural groups.

Dr Lindtjorn (Oct 15, p 909) wonders if cases seen in clinics and hospitals reflect conditions in the community. We took great care to select rural clinics which are well utilised and where figures are

2. Luqman W, Danowski TS. The use of *khat* (*Catha edulis*) in Yemen. *Ann Intern Med* 1976; **85**: 246-49.
3. Giannini AJ, Castellani S. A manic-like psychosis due to *khat* (*Catha edulis*). *J Toxicol Clin Toxicol* 1982; **19**: 455-59.
4. Loening WEK, Coovadia HM. Age-specific occurrence rates of measles in urban, periurban, and rural environments: implications for time of vaccination. *Lancet* 1983; **ii**: 324-26.