studies, as they may confound the impact of pharmacological properties of the drugs.

Appendix

Questionnaire items

(1) How many patients do you treat at present with antidepressants? Alternative answers: 0, 1 or 2, 3 or 4, 5-10, > 10.

(2) How many patients do you estimate that you have ever treated with antidepressants? Alternative answers: 0, 1-9, 10-19, 20-100, > 100.

(3) Which antidepressant do you prescribe as first line (one alternative)? Alternative answers: Saroten (amitriptyline), Tryptizol (amitriptyline), Tofranil (imipramine), Ensidon (opipramol), Tolvon (mianserin), Tymelyt (lofepramine), Concordin (protriptyline), Fevarin (fluvoxamine), Anafranil (clomipramine), Noritren (nortriptyline), Sensaval (nortriptyline), Surmontil (trimipramine), Aurorix (moclobemide), Pertofrin (desipramine), Ludiomil (maprotiline), "not applicable."

(4) Is there any one of these drugs that you mainly prescribe if you consider the depression to be particularly severe? Alternative answers: see question 3.

(5) Is there any one of these drugs that you mainly prescribe if the depression is associated with particularly severe insomnia? Alternative answers: see question 3.

(6) Is there any one of these drugs that you mainly prescribe if the depression is associated with a particularly severe anxiety state? Alternative answers: see question 3.

(7) Is there any one of these drugs that you mainly prescribe if you think there is a risk of suicide? Alternative answers: see question 3.

(8) Have you ever prescribed antidepressants for indications other than depression? If "yes" state which other indications (for example, obsessive-compulsive disorder, panic disorder, pain), which drugs you have chosen, and roughly how many patients you have treated in this way. [A table is provided for answers in which the drug used and the number of patients should be stated for each indication.]

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Impact of HIV infection on Zambian businesses

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Women attending antenatal clinics in Zambia have rates of HIV infection of 11-30%.[1] Deaths from the disease are likely to affect the economy of individual families and, if widespread, that of the country. Since December 1990 the Kara Counselling and Training Trust has offered education about HIV to local companies. We therefore studied the impact of HIV infection on businesses in Zambia as reported by senior management staff.

Methods and results

A questionnaire designed to assess the quantitative and qualitative impact of HIV infection on businesses was delivered to the personnel managers of 33 companies, including banks, car manufacturers, food and drink manufacturers, and farms. One week later it was collected and any ambiguities were clarified. Death rates were calculated by dividing the annual number of deaths by the total number of employees at the end of each year. Mortality and morbidity trends over the past six years were studied by χ^2 analysis.

All 33 companies filled in questionnaires: 25 were based in Lusaka, the capital (population 982 000, 1990 census) and eight in the Copperbelt, the other main conurbation (total population 1 200 000, 1990 census). Thirty two questionnaires were returned fully completed. One company could not find its mortality records. The total number of employees in 1993 was 10 204 (79% men, 21% women); the range for individual companies was 19 to 1836. The total number of employees did not change significantly over the study period. Most companies had a workforce aged between 18 and 55 years. Four companies had employees over 55 and one over 65.

The crude death rate in this population increased sequentially (P < 0·001, χ^2 test for trend) from 0·25 per 100 person years in 1987 to 1·83 per 100 person years in 1993 (table).

Comment

In the developing world average annual mortality between the ages of 15 and 60 is estimated to be around 0·5 per 100 person years.[2] Vital registration systems are rare in developing countries, but in Zambia company mortality records are likely to be accurate because funeral benefits are substantial. Some employees could have retired early because of ill health and so would not appear in the mortality figures when they died. We believe, however, that few deaths will have been missed because normal employment practice allows employees to remain on sick leave for prolonged periods. Buve et al found that mortality in female nurses from two hospitals in Zambia rose from 0·2-2·7 per 100 person years between 1980 and 1991.[3] Our

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BMJ 1994;309:1549-50

Crude annual mortality data and causes of death among employees of 33 Zambian businesses from 1987 to 1993

	Year							
	1987	1988	1989	1990	1991	1992	1993*	P value†
Death statistics								
Total No of employees	10 319	10 228	10 199	10 296	10 145	10 168	10 204	
Total No of deaths	26	49	52	84	116	160	187	
Crude annual mortality (%)	0·25	0·48	0·51	0·82	1·14	1·57	1·83	<0·001
Causes of death (No of employees)								
Tuberculosis	6	2	3	9	11	14	18	<0·01
Accidents	2	7	4	2		2		>0·05
Heart disease	2					2	2	>0·05
Cancer	1			1				>0·05
Diarrhoea		3		2	3	6	5	<0·05
AIDS	1	4	6	11	14	24	36	<0·001
Stroke					1			>0·05
Unknown	14	33	39	59	87	112	126	<0·001

*Predicted values: number of deaths observed was divided by number of months before questionnaire was completed and multiplied by 12.
†χ² Test for trend.

data, collected from a much larger population, fall well within their 95% confidence interval.

This increase in crude mortality cannot be definitely attributed to HIV infection as most companies do not record the cause of death. There was an increase in reporting of death from HIV infection and also from tuberculosis and diarrhoea, which are strongly associated with HIV infection in Africa.[4,5] HIV testing has not been widely available in Zambia and great stigma still exists. Deaths from HIV infection are seldom recorded, even in official statistics, since both doctors and relatives are reluctant to acknowledge publicly that HIV was the cause.

The businesses were not selected randomly. Some had approached Kara Counselling to ask for HIV education programmes while others had been approached through an informal network of contacts in the business community. Unemployment is a major problem in Zambia. The study population therefore does not represent those with the least income and the worst nutrition.

The increase is sufficiently striking to make it unlikely that changes in the demography of the study population could account for it. None of the managers interviewed commented on such changes. Managers in some of the larger companies had noticed a rising mortality among their own workforces, but the aggregation of various different businesses provides strong evidence that the death rate is rising among Zambian employees.

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Epitrochlear lymph nodes as marker of HIV disease in sub-Saharan Africa

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The association of lymphadenopathy and HIV infection has been well described,[1] but both the size and distribution of the enlarged lymph nodes have been poorly characterised. In Africa serological testing for HIV infection is both expensive and difficult to obtain, and health care workers often have to rely on clinical features to assess the likelihood of HIV disease. Knowledge of the rate of occurrence of enlarged lymph nodes and variations in their size and distribution could help identify useful diagnostic markers. Generalised lymphadenopathy, although suggestive of HIV infection, does not exclude other diagnoses such as viral infections, tuberculosis, and haematological malignancy. Our impression, in a large central hospital in sub-Saharan Africa, was that palpable epitrochlear lymph nodes were a good marker of early HIV disease. Osler noted that such nodes were a prominent clinical feature of secondary syphilis,[2] but nowadays the palpability of this node is not emphasised.[3-5] We assessed the value of regional lymph node enlargement, by site and size, as a predictor of HIV disease.

Subjects, methods, and results

All sequential adult patients (≥12 years) admitted to an acute general medical ward at this hospital over three months were eligible for the study. Readmissions and patients from specialist clinics were excluded. We obtained informed consent (from parents when appropriate), and all those who entered were given counselling for HIV testing. HIV infection was diagnosed using a double enzyme linked immunosorbent assay (ELISA) technique and western blotting for equivocal cases. Lymph nodes were scored for palpability and size to the nearest 0·5 cm in each patient. Three regions were assessed: epitrochlear, submandibular, and axillary. The doctor scoring lymph node size was blinded to clinical data and results of HIV serological tests.

Of 260 eligible subjects, 259 agreed to take part (age range 12-88). There were 184 men (mean age 40) and 75 women (mean age 36). One hundred and forty six were positive for HIV (age range 17-76; mean age men 37, women 33), giving a seroprevalence of 56%. Positive and negative predictive values, sensitivities, specificities, and odds ratios are given in the table. The odds ratios were all significant by χ² analysis (P<0·001).

Comment

Enlargement of axillary and submandibular lymph nodes by ≥1 cm gave high positive predictive values (91% and 89% respectively) and specificities (95% and 96%), but negative predictive values and sensitivities were all low (<60%). Thus, the presence of these enlarged lymph nodes was a strong marker of HIV disease but their absence was unhelpful. Their use as markers of HIV disease is limited in that they were only occasionally present (24% of all subjects had enlarged axillary nodes and 12% enlarged submandibular nodes). When the criterion for enlargement was ≥0·5 cm the total number of those with palpable nodes increased, but positive prediction and specificity were poor.

Enlargement of epitrochlear nodes by ≥0·5 cm gave a positive predictive value of 85% and the highest overall sensitivity (84%); lymph nodes were palpable in 47% of all subjects. This small enlargement of the epitrochlear nodes was less specific (81%) than more enlarged (≥1 cm) axillary (95%) and submandibular

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BMJ 1994;309:1550-1