used internationally for comparative purposes and, with full histopathological examination (as in our paediatric and adult studies), provide information significantly superior to clinical data alone.<sup>3</sup> We acknowledge that necropsies underestimate bacteraemia and enteritis.<sup>2</sup> <sup>4</sup> Pyogenic pneumonia (diagnosed on the basis of large zones of lungs with polymorphs in alveoli) was the prime cause of death in 32% (49/155) of the children and was found in 37% (57/155); the corresponding proportions in the adults infected with HIV were 8% and 30%, respectively.<sup>2</sup>

With regard to differences between adults and children, the common diseases in childhood in Africa (acute respiratory infection, malnutrition, meningitis, etc) were found frequently in both HIV positive and HIV negative children. Clinical syndromes are similar in the two groups, and symptoms and signs are poorly predictive of HIV status.<sup>5</sup> With the exception of *Pneumocystis carinii* infection, individual AIDS defining infections were uncommon in HIV positive children. In contrast, the range of disease in HIV positive adults in Abidjan is quite different from that in HIV negative adults,<sup>2</sup> as is the case in Nairobi.

The rarity of tuberculosis in the young children in whom necropsy was carried out is consistent with the annual risk of infection with Mycobacterium tuberculosis in sub-Saharan Africa—about 2%. We predict that, with a median age at death of <2 years, most African children with HIV infection die without having encountered this mycobacterium. We were not reluctant to emphasise this but believed that the implications were evident.

Finally, the 1991 article by Chin that we referenced emphasises the prevalence of HIV infection in Africa. Other articles by the same author include projections beyond 1991, which we could have cited.

> SEBASTIAN LUCAS Professor

Department of Histopathology, United Medical and Dental Schools of Guy's and St Thomas's Hospitals, St Thomas's Hospital, London SE1 7EH

KEVIN M DE COCK Senior lecturer

Department of Clinical Sciences, London School of Hygiene and Tropical Medicine, London WC1E 7HT

- De Cock KM, Barrere B, Diaby L, Lafontaine M-F, Gnaore E, Porter A, et al. AIDS—the leading cause of adult death in the west African city of Abidjan, Côte d'Ivoire. Science 1990;249:793-6.
- 2 Lucas SB, Hounnou A, Peacock CS, Beaumel A, Djomand G, N'Gbichi J-M, et al. The mortality and pathology of HIV disease in a west African city. AIDS 1993;7:1569-79.
- 3 Wilkes MS, Felix JC, Fortwin AH, Godwin TA, Thompson WG. Value of necropsy in acquired immunodeficiency syndrome. *Lancet* 1988;ii:85-8.
- 4 Lucas SB, De Cock KM, Hounnou A, Peacock CS, Diomandé M, Hondé M, et al. Contribution of tuberculosis to slim disease in Africa BM9 1094-308-1531-3
- My, Folde W, et al. Contribution of tuberculosis to shift disease in Africa. BMJ 1994;308:1531-3.
  5 Vetter KM, Djomand G, Zadi F, Diaby L, Brattegaard K, Timite M, et al. Clinical spectrum of HIV disease in children in a west African city. Pediatr Infect Dis J (in press).

## Fewer needlestick injuries than expected occurred during immunisation campaign

EDITOR,—The measles and rubella immunisation campaign in 1994 was the biggest mobilisation of immunisation services ever undertaken in Britain. This presented an opportunity to identify the rate of needlestick injuries and hepatitis B immunisation status during an immunisation campaign in staff working in the Southwark and Lewisham boroughs of London.

Questionnaires were distributed to 42 nurses and 29 doctors who immunised children during the campaign. The response rate was 67%(n=28) for nurses and 90% (n=26) for doctors. Seven nurses and five doctors reported sustaining a "clean" needlestick injury. Two nurses and three doctors reported sustaining a needlestick injury after the needle had been used on a child. Only one doctor and one nurse, who were both immune to hepatitis B, reported their injuries to occupational health staff and completed an accident form. The remaining three injuries were sustained by two nurses and one doctor, none of whom knew their immune status or had been tested for antibodies to hepatitis B virus in the previous three years.

Twenty three of the health care professionals (16 (57%) nurses and seven (27% doctors)) were uncertain of their immunity to hepatitis B. Five doctors and one nurse thought that they were immune, but they had not had their antibody status checked in the past three years. This raises the proportion of professionals who were uncertain about their hepatitis B status to 54%. The staff's immunity to hepatitis B was not assessed at the start of the campaign. With hind-sight, it should have been, but the campaign was organised without the six months' notice that may be necessary for protection after immunisation.

Needlestick injuries continue despite efforts to educate staff,<sup>12</sup> and underreporting of needlestick injuries is well recognised.<sup>3</sup> The immunisation campaign was a stressful change of routine for staff and was thus expected to result in a high rate of needlestick injuries; this expectation was not borne out by our survey, and the rate of "dirty" needlestick injuries was not high.

The problems that arise from needlestick injuries are hidden costs of immunisation programmes. The risk of hepatitis B can be avoided, but the risk of HIV infection remains, with consequent anxiety.

> ANN R HAIRE Medical officer in educational medicine

A SHARMA Consultant community paediatrician

Sheldon Children's Centre, London SE5 7RN

1 Mercier C. Reducing the incidence of sharp injuries. British Journal of Nursing 1994;17:897-900.

 Waldron HA. Needlestick injuries. BMJ 1992; 304:975.
 McCormic RD, Maki DJ. Epidemiology of needlestick injuries in hospital personnel. Am J Med 1981;70:928-32.

## Junior doctors' pay rates for additional duty hours have not been increased

EDITOR,—Linda Beecham's article about this year's pay award for junior doctors is potentially misleading since, although she reports "the proposed reduction in the payment for additional duty hours to 50% of basic pay for all grades," she does not make clear that this is to apply only to low intensity on call rotas.<sup>1</sup>

The Junior Doctors Committee's evidence to the Doctors' and Dentists' Review Body pointed out the low morale among junior doctors, and we are pleased to have been singled out for favourable treatment this year. The review body recommended a 5.3% pay increase for all junior doctors, with junior and senior house officers receiving a 6.8% increase to compensate for the fact that their rate for additional duty hours for on call work will return to 50% after last year's experiment with a rate of 52.5%. The rates for partial and full shifts remain 70% and 100% respectively. The rise of 5.3% was the highest recommended for any group of health care workers and is considerable higher than that recommended for consultants or nurses, in addition to being substantially above the rate of inflation.

While this is good news for junior doctors, we are disappointed that the review body again refused to increase the pay rates for additional duty hours. The Junior Doctors Committee's policy for many years has been that out of hours work should attract a salary of no less than the standard rate, with higher work intensity being rewarded with rates higher than 100%, but the review body persistently fails to accept our case.

After protracted negotiations, however, we have finally reached agreement with the Department of Health that high intensity on call rotas should be paid at the same rate as partial shifts. Since April, juniors are able to claim payment at 70% rather than 50% for an on call rota in which the work intensity is comparable to that of a partial shift. In return, they will have to agree to look at ways of changing the working pattern to reduce the intensity, but they will not be compelled to change over to an unacceptable partial shift.

> PETER BENNIE Chairman, Junior Doctors Committee negotiating subcommittee

9 Prospect Avenue, Cambuslang, Glasgow G72 8BW

lasgow G12 ob w

1 Beecham L. Government phases NHS doctors' pay award. BMJ 1996;312:395. (17 February.)

## Primary care out of hours

## Emergency centre in Midlothian is successful

EDITOR,—Val Lattimer and colleagues report enthusiasm for emergency centres in primary care<sup>1</sup> but, given the impetus provided by the deal over out of hours work,<sup>2</sup> urge that such initiatives are evaluated. We report a preliminary evaluation of a centre used for out of hours work and minor injuries, which is funded by the Scottish Office and Lothian Health.

Esk Valley emergency services opened in April 1995 in semirural Midlothian, where 58 000 patients are registered with eight practices (36 principals). The rate of night visits in 1994-5 was 46/1000 patients. The centre has reception, nursing, and driving staff as well as medical cover (two general practitioners for evenings and weekends; one general practitioner from midnight).

The Scottish Office commissioned the department of general practice at the University of Edinburgh to evaluate this pilot service. Information is being collected on activity, patients' satisfaction, and general practitioners' stress. Comparison of activity data is problematic as data were underrecorded in February and March 1995 (nights for which no contacts were recorded for practices were therefore excluded); in addition, April 1995 to January 1996 included an unusually busy winter.

Before the centre opened 1409 (63%) of the 2236 patients who contacted their practice out of hours were visited; after the centre opened 2524 (20%) of the 12 620 who contacted it were visited (table 1). Altogether 43% of the patients who contacted the centre attended it; this figure

Table 1—Comparison of activity before and after introduction of out of hours service

	Before	After
Annual rate of contact/1000 patients	265	303
No of patients contacting practice or centre* No (%) of patients:	2236	12620
Visited at home	1409 (63)	2524 (20)
Seen at surgery or centre	179 (8)	5427 (43)
Given advice over telephone	648 (29)	4669 (37)

\*Data on contacts before introduction of service were collected from 14. February to 23 April 1995; those on contacts after introduction of service were collected from 24 April 1995 to 11 January 1996.