Intravenous drug abuse and the accident and emergency department: AIDS (HTLV-III) antibodies and hepatitis B markers

Sir

A study from this centre reported an 87% incidence of past or on-going infection with hepatitis B virus in a population of intravenous drug abusers requiring emergency hospital services in 1984 (Dunlop & Steedman, 1985). Stored serum from these patients has recently been tested for HTLV-III antibody using ELISA and, if positive, confirmed by Western blot or immunofluorescence techniques. Table 1 (over) demonstrates clear evidence of widespread infection with HTLV-III in the study group. The overall prevalence of HTLV-III antibody seropositivity was 54% and 57% in those who exhibited any serological evidence of hepatitis B infection. Although numbers are too small to assess statistical significance, evidence of HTLV-III infection certainly appears to parallel hepatitis B virus markers.

Although those patients who were HTLV-III-antibody positive do not necessarily have AIDS, it is reasonable to assume that their blood is infectious (Cheinsong-Popov *et al.*, 1984). Furthermore, those patients who were seronegative may also transmit the virus (Salahuddin *et al.*, 1984). Clearly, nursing and medical staff in the accident and emergency department are at high risk of exposure to HTLV-III, since 19% of all attendances in the published study were due to an open wound and two patients were admitted moribund requiring intensive, though unsuccessful, resuscitative attempts (Dunlop & Steedman, 1985).

The prevalence of HTLV-III antibody seropositivity in Edinburgh has been positively correlated with a high incidence of needle-sharing (Robertson *et al.*, 1986). When parenteral abuse, rather than other methods of self-administration, along with needle-sharing have become established practice, these habits are difficult to eradicate. Hence, it can reasonably be assumed that intravenous drug abusers now attending Edinburgh Royal Infirmary Accident and Emergency Department are even more likely to have been infected with HTLV-III.

Continuing awareness of the problems presented by intravenous drug abusers and education of accident department staff in barrier techniques is crucial. In addition, the need for the development of an effective HTLV-III vaccine becomes ever more pressing.

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Table 1 Correlation of HTLV-III antibodies and hepatitis B markers

Hepatitis B status	HBsAg	Anti HBs	Anti HBe	Anti HBeIgM		No. of patients with HTLV-III Ab sero-positivity	No. of patients
Past infection	-	+ (or -)	+	-		23	41
Recent infection	-	- (or +)	+	+		2	3
Carrier	+	-	+	-	HBsAg + (or -)	2	2
Active infection	+	-	+	+	+	0	1
No serological evidence of infection	-	-	-	-	Anti HBe - (or +) - (or +)	2	7

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Bystander resuscitation: is the public enthusiastic?

Sir

Bystander resuscitation schemes in operation in Seattle (USA) and Brighton (UK) have improved the outcome from sudden cardiac death (Eisenberg *et al.*, 1979; Vincent *et al.*, 1984).

Many UK hospitals are considering the introduction of bystander schemes. We have experienced some difficulty, with a small pilot scheme, in recruiting trainees from companies with First Aid or medical provision on site.

We have surveyed 879 adults living or working in the City of London to assess the likely response to the introduction of a City of London bystander resuscitation scheme; the results of our survey are shown in Table 1.

In recent years, emergency mobile coronary ambulances have been introduced in an attempt to reduce the death toll from sudden ventricular arrhythmias, often related to acute myocardial infarction (Sherman, 1979). Variable results have been reported following the introduction of such services. Poor results have been ascribed to the absence of efficient bystander resuscitation to support the victim until the arrival of the

Table 1 Survey of bystanders

	Number	Percentage of total
Questionnaires completed	879	100
<i>Questions relating to First Aid ability</i>		
Those who had previously attended a First Aid course	314	35.7
Those who had been taught external chest compression	202	22.9
Those who had been taught mouth-to-mouth ventilation	276	31.3
Those who had practised one, or both, of the above skills on a model	246	27.9
Those who had been re-tested in the previous one-year period	16	0.18
Those who would be prepared to attend a traditional 20-hour First Aid course	213	24.2
Those who would be prepared to attend a 2-hour course, primarily in BLS	520	59.1
<i>Questions relating to on-site First Aid/medical provision*</i>		
Those who had on-site provision of First Aider only	289	31.5
Those who had on-site provision of doctor, nurse and First Aider	200	22.8
Those who had nothing	237	26.9

*i.e. provided at their place of work.