situation. If zidovudine is to be considered for health care workers should it not also be considered for an exposed sexual partner? H RÉE

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1 Jeffries DJ. Zidovudine after occupational exposure to HIV. BM7 1991;302:1349-51. (8 June.)

 BMJ 1991;302:1345-31. (o junc.)
 Zidovudine after occupational exposure to HIV [correspondence]. BMJ 1991;303:118-9 (13 July); 250-1 (27 July); 309 (3 August); 466-7 (24 August); 581 (7 September).

# Guidelines for doctors with HIV infection

SIR,-In his letter on guidelines for doctors with HIV infection Dr Laurence Cook confuses ethics and self interest.1 If as medical practitioners we all did what was best for ourselves, as he seems to advocate, then we could certainly save money on medical ethics committees.

A doctor stricken by, say, disseminated sclerosis has to face up to that and, where it may affect his ability to manage patients safely, inform the relevant authorities. A man with epilepsy who denied his disease to gain a pilot's licence in the 1950s killed himself and his copilot when he had a fit while airborne. Both these diseases are unfortunate but when they occur they impose ethical limitations on the sufferer.

I suspect that the unnecessary anxiety lest "blame" be selectively attached to people with HIV infection and AIDS is allowing the ethical issue of responsibility to be ignored, thus leading to an attitude verging on "what can I get away with." It is worth considering whether AIDS is any more tragic for the individual patient than any of the other unfortunate, debilitating, and ultimately fatal illnesses that can affect anyone before we declare it to be a disease in which the only immunity spared is an ethical one.

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1 Cook L. Guidelines for doctors with HIV infection. BMJ 1991;303:580-1. (7 September.)

# Low molecular weight heparin

SIR,-The paper by Dr P F Laeyvraz and colleagues1 and the editorial by Dr J J Parker-Williams and Mr Roger Vickers2 in the same issue highlight current interest surrounding low molecular weight heparins. Many studies have now been carried out comparing low molecular weight heparins with standard (unfractionated) heparin, predominantly in a general surgical and orthopaedic context.3 With regard to preventing deep venous thrombosis in general surgery, standard heparin has been found to be effective and safe; the International Committee on Thrombosis and Haemostasis has recommended that further placebo controlled studies are unnecessary.4 Surely we have reached a similar situation in orthopaedic surgery with respect to elective hip replacement, such that further placebo controlled studies need not be carried out. This would promote the use of prophylactic treatment as standard practice.

With the exception of a reduction in proximal vein deep venous thrombosis in patients undergoing hip replacement<sup>15</sup> the theoretical advantage of low molecular weight heparin over standard heparin has not been proved. Taken in conjunction with the fact that only a few patients with deep venous thrombosis develop pulmonary embolism, the advantage of once daily doses of low molecular

weight heparins is minimal compared with their substantially higher cost.

While recommending the use of prophylactic heparin in hip surgery, I think that it would be unwise, given our current knowledge, to preferentially select low molecular weight heparins, with the considerable financial burden that their use would place on the NHS.

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1 Levvraz PF, Bachmann F, Hoek J, Büller HR, Postel M, Samama M, et al. Prevention of deep vein thrombosis after hip replacement: randomised comparison between unfractionated parin and low molecular weight heparin. BMJ 1991;303: 13-8. (7 September.)

- Parker-Williams J, Vickers R. Major orthopaedic surgery on the leg and thromboembolism. BMJ 1991;303:531. (7 September.)
- Giuseppe G. Clinical experience with low molecular weight heparins. *Thromb Res* 1990;suppl XI:69-87.
   Hirsh J, Barrowcliffe TW. Standardization and clinical use of
- LMW heparin. Report of the ICTH heparin subcommittee, Brussels, July 1987. Thromb Haemost 1988;59:333.
- 5 Planes A, Vochelle N, Mazas F, Mansat C, Zucman J, Landais A, et al. Prevention of postoperative venous thrombosis: a randomized trial comparing unfractionated heparin with low molecular weight heparin in patients undergoing hip replacement. Thromb Haemost 1988;56:241-2.

### Skin avulsion during manipulation of fractures

SIR, -Mr D J Shewring and colleagues fail to draw one important conclusion from their report of the results of treating patients taking corticosteroids long term. If manipulation of fractures is to be carried out in these patients it must be done under a method of anaesthesia that affords adequate analgesia and maximum muscular relaxation so that only minimum force is required. This will obviously reduce the risk of damage to the skin and underlying tissues. These conditions will best be fulfilled by general anaesthesia.

It is of interest that local anaesthetic techniques were used in two of the three cases reported and in neither of these was manipulation satisfactory. Various methods of anaesthesia and analgesia are used for the reduction of Colles' fracture.<sup>2</sup> Intravenous regional anaesthesia provides poor muscular relaxation3; haematoma block provides none.

It is unfortunate that because of long term use of corticosteroids and their underlying illness these may be the very patients who are not considered for general anaesthesia and are therefore subjected to inadequate treatment with the potential for further harm to their compromised tissues.

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- 1 Shewring DJ, Wallace D, Healy CMJ. Skin avulsion during manipulation of fractures. BMJ 1991;303:513-4. (31 August.)
  Hunter JB, Scott MJL, Harries SA. Methods of anaesthesia used
- for reduction of Colles' fractures. *BMJ* 1989;299:1316-7. 3 McGlone R, Heyes F, Harris P. The use of a muscle relaxant to supplement local anaesthetics for Biers blocks. Arch Emerg Med 1988;5:79-85.

SIR,-Mr D J Shewring and colleagues understate the importance of achieving a good functional result after fractures of the distal radius.1 There are many patients for whom a less than optimal result would be a catastrophe, especially those whose fragile skin is a result of treatment for rheumatoid arthritis.

In a prospective study of Colles' fractures Villar et al established that the anatomical result does affect the final outcome.2 Radical shortening is the most important factor and leads to decreased grip strength and wrist movement, and dorsal tilt limits flexion of the wrist and supination.

An unsatisfactory position should not be

neglected, and if manipulation is performed it should be done under satisfactory anaesthesia, local or general. Haematoma blockade is not adequate and was used in one of Mr Shewring and colleagues' patients in whom skin was avulsed. An aggressive approach using external fixation yields good results,3 and if an acceptable result cannot be otherwise achieved then external fixation is indicated. This is well tolerated in both young and elderly people, and devices exist that allow both the successful reduction of the fracture and mobilisation of the wrist.4 Further work on such devices will allow earlier return of full function and a more satisfactory end result.

#### MARK T PROCTOR

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- 1 Shewring DJ, Wallace D. Healy CMJ. Skin avulsion during manipulation of fractures. BM7 1991;303:513-4. (31 August.) 2 Villar RN, Marsh D, Rushton N, Greatorex RA. Three years
- after Colles' fracture. 7 Bone Foint Surg /Br/ 1987:69:635-8 Leung KS, Shen WY, Leung PC, Kinnimonth AW, Chang JC,
- Chan GP. Ligamentotaxis and hone grafting for comminuted fractures of the distal radius. J Bone Joint Surg [Br] 1989;71: 838-42
- 4 Clyburn TA. Dynamic external fixation for comminuted intraarticular fractures of the distal end of the radius. 7 Bone Joint Surg[Am] 1987;69:248-54.

# **Domiciliary thrombolytic** treatment

SIR,-I hope that some of the issues discussed in my letter,1 which was published coincidentally with that of Dr Daniel Rutherford,<sup>2</sup> will provide him with more understanding of the rationale for the Royal College of General Practitioners' myocardial infarction study.

Dr Rutherford rightly states that my analysis of the risks of giving or withholding thrombolytic agents' is based on hospital data and is concerned solely with mortality. The point I was making was that the benefit conferred by giving a thrombolytic was dramatically better than that of not giving it (a 60-fold advantage) whenever myocardial infarction was suspected though not proved (electrocardiographic evidence was not required before giving thrombolytic agents in the study from which I derived the data).

Several factors are likely to diminish this benefit when thrombolytic agents are given by general practitioners before patients are admitted to hospital.

Firstly, benefit is confined to the marginal difference between administration at home or later in hospital. This factor is mitigated by consideration of benefits other than on mortality, as I discussed previously.1

Secondly, general practitioners may be less accurate in their diagnoses than hospital doctors. Thirdly, my calculation is necessarily based on imprecise data and may have overstated the benefit. Nevertheless, it seems to me that the effect of these three conditions is most unlikely to wipe out the massive advantage shown by the hospital data.

I am disturbed by the intrusion of the Scottish Medical and Dental Defence Union into this debate. I believe that defence societies have a duty to advise practitioners how they believe the courts would interpret the current medical consensus on clinical management. Medical standards must be set by the medical profession, and in my view it is dangerous for a defence society, on the basis of the view of a single physician, to invent standards when they do not yet exist.

Dr Rutherford tries to warn practitioners about the possible risk of litigation if adverse events follow the administration of a thrombolytic drug. Obviously he has not thought of the more likely scenario of litigation begun because a patient dies before reaching hospital and the doctor has not given a thrombolytic. Surely the moral is that the assessment of new techniques in medical practice