unvalidated operational clinical criteria, including parkinsonian symptoms (S Williams *et al*, unpublished study).

We suggest that sensitivity to neuroleptics in patients with dementia with cortical Lewy bodies is further evidence of the importance of the parkinsonian component of the condition and a reminder that the dosages in neuroleptic regimens for elderly people are largely determined empirically. We advocate much lower doses of such drugs in routine psychogeriatric practice.

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Risk of HIV infection from blood transfusion

EDITOR,—Dominic Savarit and colleagues show that, in an area of west Africa having a high HIV prevalence, a random first time blood donor has a probability of 1·8/1000 to 3·8/1000 of being in the initial phase of HIV infection. This "window period" is not detected by standard HIV tests as there is no detectable antibody and so remains a serious hazard. We have confirmed these results using an alternate methodology and have also developed a simple equation linking the probability that an HIV carrier is in the "window" (p_w) with the rate of spread of HIV. We treat the incubation period of untreated HIV as having four successive phases, giving rise to a 10·8 year median incubation period. These phases correspond to initial infection, CD4 counts > 500, CD4 counts 200-500, and CD4 counts < 200. The associated infectivities are bimodal, being raised during the first and fourth phases. The mean durations of the phases are 1·5 months, 2 years, 10 years, and 1·5 years.[2-4]

This leads to the simple differential equation $dN_1/dt = \alpha N - N_1/\beta$ where N_1 is the number of HIV carriers in the "window"; N is the total number of carriers; α is the ratio between the monthly number of new infections and the number of carriers; αN is the number of new infections per month; and β is the duration of the "window" (1·5 months). In a mature epidemic $(dN_1/Ndt) \cong 0$, yielding the deceptively simple relation $p_w = N_1/N = \alpha \times \beta = 1{\cdot}5\alpha$. In western Africa the estimated doubling time of the epidemic is of the order of four years, which is consistent with a 2·5% seroconversion rate among repeat donors and a nominal prevalence rate of 10%.[1] This translates into $\alpha \cong 0{\cdot}015$ infections per carrier per month, so that $p_w \cong 0{\cdot}023$. The fraction of random blood donors who are infected with HIV and who are in the window is given by the equation $f_x = p_w f_{hiv}$, where f_{hiv} is the fraction of donors testing positive for HIV.

In Abidjan, the fraction of first time donors who test HIV positive is 0·11, giving an estimate that 2·5/1000 random blood donors are in the "window period" of HIV infection, which agrees with Savarit's estimates. In the United States, in 1991, $\alpha \cong 0{\cdot}01$[2,3] and $f_{hiv} = 1/5000$ so that 1/300 000 blood donors would be in the initial phase of infection (the window). In 1987 this number was about 1/100 000.

Not only do we corroborate Savarit's analysis but in addition we show the linkages between the fraction of carriers who are antibody negative and the monthly rate of new HIV infections. It is theoretically feasible to compute the instantaneous growth rate of the epidemic by estimating the fraction of carriers in the window. This could be done by testing serum samples negative for antibodies to HIV with the polymerase chain reaction to detect the presence of the virus. The probability that a carrier is in the window (p_w) is simply the ratio of the number who are positive with the polymerase chain reaction though negative for HIV to the number who are either positive with the polymerase chain reaction or positive for HIV antibodies. This approach could provide a method of determining the effectiveness of interventional strategies.

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AIDS, ethics, and clinical trials

EDITOR,—The statement of the Institute of Medical Ethics working party on the ethical implications of AIDS[1] provides a helpful and constructive overview of the challenges to clinical research conventions posed by the new circumstances of the HIV epidemic. However, it may be incorrect in its assessment of the part played by the parallel track mechanism which provided early access to didanosine and, more recently, to d4T (stavudine).[2]

The statement argues that expanded access to didanosine contributed to the lack of firm evidence of clinical benefit from this drug, implying that the development of and accrual to formal clinical studies of didanosine were hindered by its release for compassionate use. This is not the case. Daniel Hoth, director of the Division of AIDS at the National Institute of Allergy and Infectious Diseases, reported that "the trials' entry rates are roughly equivalent to those seen in AZT trials."[3] The only patients eligible to receive didanosine under the compassionate release programme were those who did not meet the rather restrictive entry criteria for the formal clinical trials. If those trials had been better designed more patients would have been eligible and more data on the clinical efficacy of didanosine might now be available. In any event, the expanded access programme provided important safety data and contributed to the approval of didanosine "earlier in the drug approval process than any AIDS drug in history" (D Barr *et al*, VIII international conference on AIDS, Amsterdam, 1992).

This is not to say that the parallel track system was without faults. Patient advocates have suggested that expanded access programmes could be improved by including an element of randomisation and dose comparison and by collecting data on clinical events. Activists accept that "the key to achieving faster drug development in AIDS lies not in an exclusive focus on expanded access or parallel tracks, but rather on their integration into an enlightened program of rapid, flexible, humane and attractive clinical trials."[4]

In addition, I am not aware that the lack of patient interest in the optional placebo arm of the MRC's alpha trial of didanosine has led to increased demand from people with HIV and their advocates for more traditional placebo controlled studies. Rather, it indicates that many people with HIV participate in clinical trials as a means of access to experimental therapies, rather than for the interest of science and society. The challenge facing investigators is to design trials which offer valid treatment options in every arm while retaining the ability to produce reliable efficacy data. "Unless every arm of a clinical trial is a viable treatment option, that trial is fundamentally impractical and unethical."[5]

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Learning from "the South"

EDITOR,—The editorial[1] marking the 50th anniversary of Oxfam emphasised the need for health workers in countries like Britain to learn from the experiences of those in developing countries. As Garner states, throughout the Third World paramedics such as medical assistants and clinical officers are responsible for most of the hands on medical care. His few examples of their capabilities give a falsely rosy impression of general reality.

In over 25 years of working in India, Africa, and the Middle East I have seen these reasonably well trained and initially enthusiastic people packed off into what is often a foreign part of their country and starved—of drugs and other supplies, facilities, literature, refresher training, and, most important of all, hope of advancement. A visit to a school of health sciences in central Africa a few months ago confirmed that my impressions are not outdated. Primary health care has been emphasised to the neglect of secondary care.

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Persistent vegetative state

EDITOR,—The opinion of the medical ethics committee of the BMA that artificial feeding of patients in the persistent vegetative state is a medical treatment[1] deserves further scrutiny.

The purpose of medical treatment is to cure, remedy, or palliate clinically diagnosable conditions. Nutrition and fluids do not cure any clinically diagnosable condition; they meet the need of the body for basic resources. Although hyperalimentation is a form of assisted feeding that may be regarded as an ordinary form of medical treatment, other forms can be maintained in most