

Drugs for developing countries

# Uncharitable stance from Oxfam

In the poorer countries of the world, millions of people suffer unnecessary ill health or die because simple drugs such as antibiotics are not available. But to what extent have the marketing methods of the multinational pharmaceutical manufacturers contributed towards the misuse and waste of drugs in the Third World?

According to the British charity Oxfam, the manufacturers have blatantly promoted inappropriate and harmful drugs in developing countries, which lack the tight governmental control on drug sale and distribution now normal in wealthy nations. And last week Oxfam renewed its attack on the industry by publishing a new study, "Bitter Pills" by Dianna Melrose. Despite a rider from the charity's director-general Brian Walker, recognizing the "valuable contribution of the research-based drug industry to world health", the study casts the industry as the villain of the piece.

But the industry, in the shape of the Association of the British Pharmaceutical Industry (ABPI), says that until it proves possible to build up adequate health-care systems in the poorer countries so that appropriate drugs can be properly prescribed and distributed, there is little the industry can do.

Abuses cited by Oxfam fieldworkers include: the maintenance of "high prices" for pharmaceuticals; inaccurate or misleading promotional literature; and aggressive promotion of "non-essential" drugs at the expense of more vital products. A common complaint is that over-prescription is encouraged — so, for instance, an impoverished patient with a bacterial infection might be prescribed a tonic and a multivitamin preparation in addition to the vital antibiotic. Since the antibiotic is likely to be the most expensive of the three, and the patient cannot afford them all, the cheaper, heavily promoted tonic and multivitamins may be preferred.

One of Oxfam's answers to over-prescription is to limit the number of drugs on sale in developing countries. The World Health Organization (WHO) has issued a list of approximately 200 "essential" drugs (many others being deemed "useful") for developing countries, and in June Bangladesh's military government took the

dramatic step of banning the sale of more than 1,700 drugs termed "harmful" or "unnecessary" and allowing only 150 "essential" drugs from the WHO list to remain on the market (*Nature* 15 July, p.219). Local and international drug manufacturers objected, but although there have been some additions to the list of permitted drugs after strong protests, the government is to go ahead with its plan.

Thus events in Bangladesh over the next few years should show just what can be



achieved by severely restricting drug supply in a country where many of the problems of distribution, prescribing and poverty persist.

There seems little doubt that a policy based on greater promotion of WHO's 200 "essential" drugs for the developing world will be of some benefit. About 50 drug companies are already cooperating with WHO by promising favourable prices for listed drugs, although further moves like that in Bangladesh actually to prohibit the sale of products not listed would not be likely to encourage further cooperation.

Oxfam, though, seems likely to remain unconvinced. WHO is seen as well intentioned, but "a toothless tiger", in the words of Oxfam's Dianna Melrose, and there is mutual distrust between Oxfam and the drugs industry. Were the two camps to stress the many views they hold in common rather than relish the differences, the world's developing countries could only benefit.

**Charles Wenz**

British universities

# Agony at Aston

The legal quirk that provides security of tenure for full-time academics at British universities is likely to be tested in a forthcoming battle between the University of Aston in Birmingham and the Association of University Teachers (AUT). The outcome will set an important precedent for other universities.

Aston was told in July 1981 by the University Grants Committee (UGC) that its budget would be reduced by 30 per cent in the succeeding three years. A large-scale programme of voluntary redundancies has already been approved, but now the university's council has voted by a narrow margin (19 votes to 17, with one absentee and one abstention) to effect compulsory redundancies under the 1975 Employment Protection Act. It is thought that 41 academics (chiefly in the fields of engineering and mathematics) could be given notice before Christmas.

The union, according to its general secretary, Mr Laurie Sapper, is prepared to fight all the way. An application to the High Court for a writ to prevent the redundancies is being considered. The grounds of the action are that compulsory redundancies would be contrary to the charter and statutes of the university which (like those of most universities in England and Wales) specify that "no member of staff . . . shall be removed from office . . ." except on grounds such as physical or mental incapacity and immoral, scandalous or criminal behaviour; there is no mention of financial circumstances as a cause for dismissal.

AUT has sought access to the university's accounting figures so that it can carry out its own examination of the university's finances, but Mr Sapper says that Professor Frederick Crawford, Aston's vice-chancellor, has failed to respond to AUT's letters. AUT has accordingly applied for access under the Employment Protection Act.

Aston is primarily technology-based, and has forged extensive links with local industry. The university says that the unemployment rate among its graduates is one of the lowest in Britain.

UGC recommended in July 1981 that student numbers in several science subjects should be reduced and that courses in biological science and architecture should be discontinued. Aston has already axed its courses in human communication and behavioural sciences. The number of science students has fallen from 3,100 in 1980-81 to 2,732 now, while arts student numbers have fallen from 1,383 to 1,340, but further reductions have still to be made. Full-time academic staff, of whom there were 522 in August 1981, will have to be reduced to 357 by July 1984.

At the same time, the university plans to recruit extra staff in some subjects, notably



Distribution problems — penicillin exposed to heat and sunlight for sale in a market in Upper Volta.

for its Management Centre, which received special praise from UGC. It is also determined to maintain a biology presence, possibly by means of a new biotechnology unit. But staff of the existing biology department have refused to examine that plan on the grounds that it would probably involve abandoning the university's established expertise in applied biology and also lead to redundancies.

Dr Richard Etheridge, a senior lecturer in production technology at Aston and a member of the AUT national executive, says that the university staff feel that the vice-chancellor is imposing redundancies with unseemly haste. The Department of Employment was notified of the proposals (as required by employment law) on 18

November, and redundancy notices could be issued as early as 22 December. Several attempts by academic staff at the most recent meeting of the university senate to introduce motions urging reconsideration or delay were blocked by the vice-chancellor on the grounds that these were not procedural matters.

The issue is certain to be raised again at

the next meeting of the university council on 14 December. AUT is planning to lobby council members on that day, urging them to reconsider, and has threatened to tell its members elsewhere to boycott the university, depriving it of external examiners and putting existing procedures for the award of degrees in hazard.

**Tim Beardsley**

### Spina bifida

## Controversy over tests continues

Heart-searching and a little politicking about the UK Medical Research Council's proposed controlled trial of the utility of folic acid and other vitamin supplements as a prophylactic of spina bifida continues, fanned by the appearance of a blank space in last week's edition (see *Nature* 25 November, pp.302 and 310). What follows is an account of the origin and the course of this controversy.

The immediate stimulus of present interest in a controlled study of folic acid supplementation appears to have been the publication in February 1980 (*Lancet* i, 339) by Professor R.W. Smithells of the University of Leeds and seven collaborators of an article entitled "Possible prevention of neural-tube defects by pre-conceptual vitamin supplementation". That reported on a study in which women who had previously given birth to a spina bifida child were offered a vitamin preparation containing folic acid. This report appears to have prompted the UK Department of Health to enquire, in 1980, of the Medical Research Council whether a controlled study of the efficacy of folic acid would be feasible and desirable.

Spina bifida results from the incomplete closure of the neural tube in the early stages of embryonic development, and is thought to date from 15 to 20 days after conception. The other principal neural tube defect in human beings is anencephalus. Animal models for the study of neural tube defects, among which the curly tailed mouse stands out, have not so far provided a clear picture of the mechanism by which the neural tube is closed in normal development, although they do clearly show an interaction between genetic and environmental factors in the causation of neural tube defects (see Morriss, *G. Nature* 284, 121; 1980).

That a dietary deficiency of some kind may be involved in the occurrence of neural tube defects in human births is suggested by the correlation between the incidence of the defects and the social class of the mothers concerned. (The incidence is greater among less prosperous families.) Another pointer of the same kind is the increased incidence of defective births among children conceived in the late winter and early spring.

The geographical variation of the incidence of these defects is, however, harder to account for. In the British Isles, the incidence of both defects is greatest in the west (Ulster and the Republic of Ireland),

amounting to 9 per 1,000 in Belfast, 7 per 1,000 in South Wales, 4 per 1,000 in Birmingham (central England) and 2 per 1,000 in south-east England. By contrast, in France the incidence of the defects is less than 1 per 1,000, while the defects are almost unknown among some of the poorest populations of the world. In North America, the incidence of the defects appears to decrease from a maximum on the east coast of about 2 per 1,000 to less than half as much on the west coast. There appears to be a puzzling cyclical variation of incidence in the United Kingdom with a periodicity of twenty years or so.

That genetic factors influence the occurrence of neural tube defects is borne out, for example, by studies in South Wales in the 1960s. In one survey (Carter, C.O. *et al. J. med Genet.* 5, 81; 1968), 5.2 per cent of the siblings of an affected mother were found to produce neural tube defective children, compared with the general incidence of 0.77 per cent in the population as a whole. The risk of neural tube malformations is, puzzlingly, greater among first births and twice as great among females as among male children. One epidemiologist said this week that there can be no other congenital malformation whose incidence provide so many clues but whose causation is still in doubt.

The notion that a deficiency of folic acid may be partly responsible appears to stem from measurements by Smithells and his colleagues suggesting that red-cell folic acid and leukocyte ascorbic acid (vitamin C) might be deficient in mothers giving birth to defective children. These measurements led to Smithells's clinical trial of the efficacy of vitamin supplements including folic acid in the prevention of recurrences of neural-tube defective births.

Women who had previously given birth to spina bifida children were recruited to the study principally from genetic counselling clinics, but also by referral from general practitioners, and were offered a course of treatment with a multivitamin preparation containing folic acid. Among those who accepted, 137 gave birth within the period of the study, as did 187 of those who were found already to have become pregnant again (or who declined). In the first report of the study, among 140 children born to the mothers supplemented with folic acid, there was only one neural tube defect. But there were

## Object lesson

### Brussels

In an unusual demonstration of its powers, the European Commission has questioned West Germany's second energy research programme, which is suspected of contravening EEC's rules on competition. The West German government has six weeks in which to reply.

The programme in question, which covers the period up to 1985 and costs DM13,465 million (£3,370 million), was in fact approved last year and is already operating. Nevertheless, the Commission complains that it was not informed in due time about either this programme or the last one and points out that the programme is a form of state aid and so is subject to the Commission's approval.

In its letter, the Commission declares that it wants to examine in greater detail the extent to which the programme fits in with the Community's energy policy aims. The fact that much of the money will be set aside for large-scale projects, particularly in fields such as fast-breeder technology, largely carried out in Germany by private companies, leads the Commission to question whether or not the aid is leading to a distortion of competition within the Community. And second, the Commission is concerned about whether only German companies and not, say, the foreign subsidiaries of companies from other parts of EEC, will be able to take advantage of the loans and subsidies.

This is the first time that the Commission has raised objections to a national research programme and its action is being interpreted in Brussels as a sign that research programmes should not be used by national governments as a discreet form of industrial featherbedding. If the Commission is not satisfied with the reply from Bonn, and is successful in pursuing its action, a similar letter might soon be on its way to Paris.

**Jasper Becker**