TABLE IV—*Results of surveys on dependent doctors. (Figures are numbers (percentages))*

Study	Centre	No of doctors	Length of follow up (months)		Deaths due to alcohol	Recovery	
			Range	Mean		No relapse	Brief relapse
Murray[7]	London	41	6-132	63	5 (12)	5 (12)	15 (42)
Goby *et al*[8]	Illinois	51	3-120	42	4 (8)	19 (37)	32 (63)
Kliner *et al*[9]	Minnesota	85	12	12	5 (6)	51 (60)	62 (73)
Johnson and Connelly[10]	Topeka, Kansas	50	9-54	—	3 (8)	32 (64)	32 (64)
Herrington *et al*[11]	Wisconsin	40	1-24	—	3 (6)	21 (67)	33 (82)
Morse *et al*[12]	Mayo Clinic	73	12-60	42	9 (12)	—	44 (60)
North West Doctors and Dentists Group	Manchester	100	9-102	60	7 (7)	71 (71)	76 (76)

the group by the time of the survey and nine did not respond to the questionnaire. Three others who did not respond had died and the responses of their relatives may have been inaccurate. This group is unlikely to represent all doctors with alcohol problems in the region, although the two psychiatrists who referred most of the members say that most, if not all, of the alcoholic doctors they saw between 1980 and 1988 joined the group.

Nevertheless, these results are much more encouraging than Murray's in London in 1976[7]; and several studies over the past 14 years have shown a steady improvement in recovery rates (table IV).[8-12] Between 1970 and 1983 the standardised mortality ratio for deaths among British doctors due to cirrhosis of the liver fell from 310 to 115.[13] Only two members of this group are known to have contributed to these statistics.

There was a clear relation between willingness to accept help—that is, by attending this and other groups regularly in the first six months of contact—and achieving abstinence for six months. The support of the General Medical Council was also invaluable, particularly after the medical committee was established in 1985. Before that the council could take only disciplinary action; now it can assess, review, and impose conditions on doctors while allowing them to remain in work. Bridging the chasm between professional status and personal degradation is one of the strongest features of the North West Doctors and Dentists Group: for some it is still a bridge too far, but they should be encouraged by the results of this study.

The single most important message is that alcoholic doctors can recover.

For further information about the North West Doctors' and Dentists' Group telephone 061 9984155.

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Letter from . . . Chicago

Revolt of the elderly

George Dunea

Death, taxes, and tuition fees are the major certainties of American life. Of these death is the least negotiable, despite respirators and intensive care units that promise to confer at least a limited degree of immortality. The colleges, their fees rising exponentially, may soon price themselves off the market, leading to a resurgence in learning and education that may even surpass the renaissance. But taxes remain a thorn in the side, as unpopular here as during the time of King George III, precipitating the periodic dumping of perfectly good tea into Boston Harbour, or of perfectly serviceable politicians out of office. The latest incident in this tradition, a geriatric revolution, occurred as a protest against a selective surtax levied on the elderly to pay for catastrophic health care insurance.

The law, which I described previously (29 October 1988, p 1140) was a compromise from its inception. It had started as a modest gesture by the Reagan administration to woo the elderly and deflect charges of insensitivity to the poor. A Democrat congress eagerly expanded benefits, the Association of Retired Persons lobbied aggressively, and President Reagan could not afford to veto the bill before an election. But he stipulated that the elderly should pay for this programme themselves. This was to be achieved through an incremental surtax of up to $800-1000 a year levied on some 40% of the over 65 year old, 33 million Medicare recipients. Under the law's provisions the government would have paid for most outpatient drugs and almost all hospital costs for 150 days of skilled nursing care and for all doctors' bills, subject to some deductions and ceilings, as well as for mammograms and some other expenses. As such it was a compromise, not merely between political factions but also between the ideal and the affordable. The elderly wanted long term nursing care, which would have cost more than $20 billion a year. As a compromise they got expanded hospital and medical care. At first it seemed a good thing, even though some feared right from the outset that mushrooming costs could eventually break the bank. Also unhappy were those who could afford supplementary "Medigap" insurance policies because in reality they would be paying twice for the same benefits. Nevertheless, at first relatively few senior

Cook County Hospital, Chicago, Illinois
George Dunea, FRCP, *attending physician*

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citizens paid attention to the mechanism that would fund this piece of benevolent legislation.

Shell shocked congressmen

During the spring and summer, however, they did. They noticed that the dollars would be coming not out of general revenues but out of their own pockets. And they revolted. They wrote to their congressmen in such profusion that the latter were shell shocked. They marched on Washington. They banged on their representatives' cars. The chairman of the ways and means committee was chased down the street in Chicago by irate elderly citizens. So congress took fright, its members being up for re-election every two years, and voted in October to repeal the whole bill. At first the senate demurred. It tried to work out a compromise to preserve at least some of the benefits. The administration might have saved the bill but sat on the sidelines. The health secretary made some feeble gestures of support but was silenced by the budget office. The issue came to the reconciliation committee, where the congressmen would not budge. In November the entire law was dumped into oblivion.

Among the immediate consequences is some confusion about what taxes need to be paid this year and how the tax forms are to be filled in. Some of the collected money was to be used to help the complicated process of balancing next year's federal budget. Some Medicare beneficiaries, having come to rely on the new law, may find themselves without cover or subject to bills for being too long in hospital. Supplementary "Medigap" health policies may rise from $50 to $60-80 a month. The states will need to pay more for the health care of the uninsured elderly and for certain federally mandated benefits. And observers commented that this repeal was the first retreat in a long sequence of expensive entitlement programmes, predicting that congress may think twice before trying again.

Indeed some people thought that more congressmen should study the bills they are voting for, this being what they are paid for, especially as many of them admitted that they never quite understood what the benefits were and who would pay for them. Congress, and even society at large, may have to face up to the reality that somebody has to pay for new programmes and that somehow somebody has to find the money. One approach, a selective tax on a restricted group, is clearly not the way, as shown by the angry protests of the bruised Medicare recipients.

But others spoke about justice between generations, painting an unflattering picture of the wealthy elderly not willing to pay for their less fortunate fellows and leaving the burden to the working young. They suggested that the image of the poor widow living on cat food may rapidly give way to that of selfish retired folk feasting on crab food and playing volley ball in Florida. They also predicted that young workers currently paying taxes and having large social security contributions taken out of their pay cheques will, on account of inflation, by no means enjoy the same affluence when the enormous baby boom generation in its turn reaches retirement age in the next century.

There also remains the issue of how to provide medical care for the 37 million Americans without health insurance, including the 30% elderly people who are too poor to afford private insurance. Many hope that this will be achieved through a pluralistic system, provided largely at local level. But a strong contingent still favours a universal health system. Unfazed by the failures of centralised planning in eastern Europe, they dream of past and future glorious revolutions and look to a monolithic system run by the bureaucrats in Washington.

New Drugs

Insulin

J Niall MacPherson, John Feely

Since insulins were reviewed in *Today's Drugs* in 1983, human insulins have become the most commonly prescribed preparations. Their advent has stimulated further assessment of insulin pharmacokinetics and of insulin regimens for achieving good control of diabetes. Intense controversy has been occasioned recently by the suggestion that the counterregulatory hormone response to hypoglycaemia may be less in patients taking human insulin.

Research is being directed to the feasibility of using alterations in the structure of the insulin molecule to produce preparations with therapeutic advantages over existing insulins. Disposable plastic syringes and needles and blood glucose concentration testing strips have become prescribable by general practitioners in the United Kingdom, and pen devices are being used more for subcutaneous insulin administration. The remaining uncertainties about whether near normoglycaemia can prevent complications in type I diabetes have stimulated the long term study phase of the diabetes control and complications trial. The use of insulin for non-insulin dependent diabetics has attracted increased interest, and the United Kingdom prospective diabetes study will include an assessment of the effect of this treatment on outcome. The importance of educating diabetic patients about their self care and the complexities of this education process have also been increasingly recognised.

Crosshouse Hospital, Kilmarnock KA2 0BE
J Niall MacPherson, FRCP, *consultant*

Trinity College and St James' Hospital, Dublin, Eire
John Feely, FRCP, *professor and consultant*

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Insulin preparations

FORMULATIONS

The table summarises currently available insulin preparations. Soluble insulins consist of insulin in simple solution and are therefore absorbed rapidly when injected subcutaneously. They are the only insulins available for intravenous administration. The insulin zinc suspensions use the relative insolubility of insulin combined with zinc in acetate buffer to retard absorption from the injection site. As amorphous suspensions (semilente insulins) have small particles they are absorbed rapidly and have a duration of action somewhat longer than that of soluble insulin, whereas crystalline suspensions (ultralente insulins) have larger particles, are more slowly absorbed, and have a duration of action of more than 24 hours. Lente insulins comprise a 30% amorphous 70% crystalline mixture. Isophane (NPH) and protamine zinc (PZI) insulins use the relative insolubility of a combination of protamine zinc and insulin to retard insulin absorption.

Soluble and isophane insulins may be mixed in the syringe without the quick action being lost, whereas