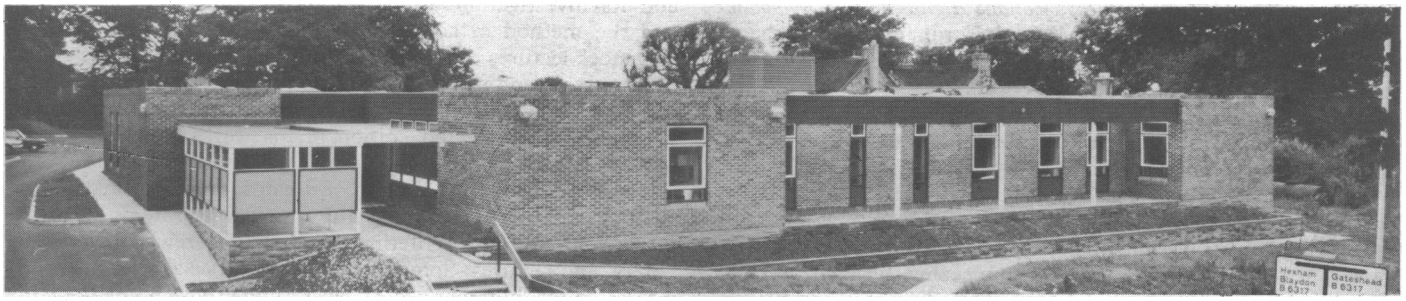
Community Clinics in Clinical Pharmacology

Benzodiazepines

ANDREW SMITH, M D RAWLINS



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Problem

Over the past few years we have come to rely increasingly on benzodiazepines as hypnotics and tranquillisers. I think we have all been struck by their apparent safety and their effectiveness —when compared with barbiturates—but some of us are concerned about the many patients who have been getting repeat prescriptions over many years. We have two problems: Are they as safe as we think? Which ones should we use?

Advice

The benzodiazepines are a family of drugs with similar chemical structures. They include chlordiazepoxide (Librium) and diazepam (Valium), which are often used as minor tranquillisers (anxiolytics), as well as nitrazepam (Mogadon) and flurazepam (Dalmane), which are mainly used as hypnotics.

Like all the other minor tranquillisers and hypnotics, they are cerebral depressants. Their advantages over barbiturates are: (1) they are extremely safe after even massive overdosage; (2) they produce physical dependence only occasionally; and (3) they do not stimulate (induce) drug metabolising enzymes in the liver at conventional doses, and are therefore less likely to interact with other drugs.

Despite this, they have several disadvantages: (1) Because they are cerebral depressants, they may produce drowsiness and confusion. This is particularly important in the elderly, who are highly susceptible to "mental clouding" when given benzodiazepines as anxiolytics or hypnotics. (2) Again, because they are depressants of the nervous system, they potentiate the effects of other depressants, particularly alcohol. (3) After even short-term use, they produce psychological dependence. Even in healthy normal volunteers, two weeks' treatment with a benzodiazepine produces "rebound" anxiety when the drug is withdrawn, which may last for several days. Withdrawal can be better accomplished by dropping the dose slowly. (4) For reasons that are not fully understood, benzodiazepines may suppress normal inhibitory mechanisms in the brain; they can produce aggressive behaviour or precipitate episodes of petty crime (such as shoplifting) in people with previously unblemished characters.

Mild anxiety symptoms are better managed by a chat than by a prescription, but the real problem is time. If you have only five minutes to see a patient it is much easier to write a prescription than start on psychotherapy. I think we must accept that in the long term, however, psychotherapy is likely to be less time-consuming than having someone dependent on drugs. Using benzodiazepines to cover "short-term" anxiety is also potentially dangerous, and if you prescribe them for exams or driving tests I would suggest that you reconsider their use.

One interesting change that has happened over the past few years is that patients expect drugs to ease bereavements. They have come to expect tranquillisers as part of our twentieth-century culture. Recent studies suggest that it's better to have a good cry and get it over with, as medication during the initial period of grief may produce delayed depression.

We know too little about the use of benzodiazepines in patients whose problems originate from intolerable social circumstances. The results of a recent survey showed that in 90% of "battered babies" cases one parent was taking a benzodiazepine. Now obviously such a finding does not mean that these two facts are causally related—the same conditions that resulted in baby-battering could have prompted treatment with benzodiazepines. In view of what I said about these drugs' effects on behaviour, however, it does give rise to concern.

We haven't talked about benzodiazepines as hypnotics. They do have special advantages over barbiturates, which should be avoided. This also applies to glutethimide (Doriden)—particularly because of the serious effects of overdosage. Dichloralphenazone (Welldorm) has two particular problems: firstly, it not infrequently causes rashes; and, secondly, like barbiturate and glutethimide, it "induces" hepatic drug oxidation.

Nitrazepam has hangover effects. Even in healthy young adults there are demonstrable changes in psychomotor function up to 16 hours after a single dose. Moreover, in the elderly "mental clouding" will occur with nitrazepam and flurazepam just as with the other benzodiazepines.

Finally, which of all the available benzodiazepines should be used? The simple answer is the cheapest. There is little to choose between any of them.

Whickham Health Centre, Whickham, Newcastle upon Tyne
ANDREW SMITH, MB, FRCP, general practitioner

University Department of Pharmacological Sciences (Clinical Pharmacology), Newcastle upon Tyne NE1 7RU
M D RAWLINS, MD, FRCP, professor