

MEDICAL PRACTICE

Contemporary Themes

Are Our Barbiturates Really Necessary?

On 24 June a tape-recorded discussion was held on possible voluntary restrictions on prescribing barbiturate. Taking part were Dr. Alick Elithorn, Consultant in Psychological Medicine at the National Hospital for Nervous Diseases and Royal Free Hospital; Dr. David Galloway, Lecturer, Department of Clinical Pharmacology, University of Aberdeen; and Dr. F. O. Wells, General Practitioner, Ipswich. Dr. Stephen Lock, now Editor B.M.J., was in the chair. Below we print our edited version of this discussion.

CHAIRMAN: There has recently been a lot of talk about voluntarily limiting the prescribing of barbiturates. Dr. Wells already has some experience of this, but perhaps we could open this discussion by asking him about a previous campaign centred on amphetamine prescribing.

DR. F. O. WELLS: One of the first successful exercises in controlling drug prescribing by the profession itself started in Ipswich in 1970—when because of the increasing misuse of amphetamines doctors there decided not to prescribe them for non-essential indications. Of course, every doctor reserved the right to prescribe what was needed for the individual patient—which is why we prefer the word restriction and not ban. Nevertheless, save for narcolepsy and the hyperkinetic child, it was agreed that generally amphetamines weren't necessary. We have successfully lived as an amphetamine-free society; chemists don't hold stocks; while the movement has spread nationally, so that in Britain today only about 17% of the formal total amount of amphetamines is being prescribed.

Subsequently our local drug liaison committee considered whether smaller amounts of barbiturates could be prescribed. Now this is a much less clear-cut question, as there are certain important indications for these drugs, as hypnotics and as antiepileptic agents—phenobarbitone for grand mal epilepsy, for example. But four factors encouraged the committee to persist with this idea: (1) the misuse of drugs by young people (we'd had three deaths locally in a few years); (2) dependence on barbiturate hypnotics among the middle-aged and elderly; (3) overdosage, in suicidal or parasuicidal attempts; (4) the existence of safer alternatives.

So my own practice decided to see whether it could do without these drugs. Some 126 patients were found to be dependent on various barbiturates (one for over 25 years), but over three months we managed to substitute nitrazepam in all of them (even if this meant replacing one tablet of barbiturate by one of nitrazepam a week). So we substituted a non-lethal, non-habit forming—albeit expensive—effective drug for a dangerous one. But even more important was that patients began to ask themselves whether their hypnotic was really necessary: now

we have only 20 patients needing any sleeping tablet at all.

In theory, therefore, with some provisos, I think doctors could achieve a barbiturate-free society just as we achieved an amphetamine-free one. There are now so many problems with barbiturates that I think this should be considered.

DR. ALICK ELITHORN: I'd first like to comment on the amphetamine story. Some of us might argue that you'd done enormous harm to medicine by your campaign to ban amphetamines . . .

DR. WELLS: . . . not ban, limitation . . .

DR. ELITHORN: To generalize and say that doctors are prescribing recklessly and can't prescribe sensibly is to attack their integrity.

DR. WELLS: No: our practice looked at its own habits first, saw how these could be bettered, and then improved prescribing. What harm did limiting amphetamines have?

DR. ELITHORN: Because they are the only drugs that have a stimulant effect on the nervous system. There's no other group of drugs which increases the efficiency of the nerve cell oxidation.

DR. D. B. GALLOWAY: In broad terms that is fair comment.

DR. ELITHORN: You are also denying patients with narcolepsy who visit Ipswich the benefit of treatment—these patients tend to be vague and not to carry supplies about with them.

DR. WELLS: That's not so; we've never had any difficulty in obtaining supplies.

DR. ELITHORN: Apart from the treatment of narcolepsy, the amphetamines are important in the treatment of hyperkinetic children in counteracting the sedative and depressant effects of anticonvulsant drugs and in the treatment of cerebral insufficiency in the elderly. Amphetamines may also be important in treating depression; there's no other short-acting anti-depressant that is anywhere near so effective.

DR. WELLS: Many doctors would disagree with that.

DR. GALLOWAY: I certainly would disagree with that: I know of no published scientifically reliable study which shows that amphetamine has a measurable effect in relieving acute or chronic depression.

DR. ELITHORN: Certainly amphetamine was the major anti-

depressant drug until the discovery of the tricyclics and there is a massive literature showing that it improves mood and other cerebral functions.

Two Classes of Doctor

CHAIRMAN: Are you arguing that these drugs should be restricted to specialists in hospitals?

DR. ELITHORN: This is a very important issue. To do so will lead to the creation of two classes of doctors—those who are allowed to prescribe drugs and those who aren't.

DR. GALLOWAY: This situation already exists for heroin.

DR. ELITHORN: The average country G.P. in Britain already has responsible prescribing habits: are we concerned about controlling doctors or the patients? Dr. Wells's ideas are tantamount to saying that you'll deal with rape by banning women.

DR. GALLOWAY: That's unfair: there are clear alternatives to amphetamines.

DR. WELLS: It's a fact that our community has survived without amphetamines for five years, without any evidence of harm.

DR. ELITHORN: You doctors have survived, but what about your patients?

DR. WELLS: We have to live with them, and there's no evidence of any harm. You forget that the basic proviso is that any doctor remains free to prescribe what he wants for his individual patient. Nobody has prevented you, Dr. Elithorn, from using amphetamines as you think fit.

DR. ELITHORN: In some ways, yes. I'm in a privileged position but, even in hospital, there have been tremendous pressures against prescribing amphetamines. The refusal to allow doctors full responsibility in prescribing is intolerable. Planning and central government should aim to prevent abuse and not strive to say too officiously what is good for people.

Problems with Barbiturates

CHAIRMAN: Could we apply this argument to barbiturates?

DR. ELITHORN: Easily, because both drugs may enable some patients to function, whereas without them they couldn't do so. Take the geriatric patient who's sleeping by day and wakeful by night: doctors can control both features with amphetamines and barbiturates. You may argue that drug control of people is wrong—that's a different issue—but if you accept it, then doctors need both drugs. At present, however, the restrictions on prescribing amphetamines has made a controlled trial of such treatment unfeasible. A second point is that drugs have different properties: the literature shows, for instance, that the benzodiazepines are more anxiolytic and less hypnotic than the barbiturates.

DR. GALLOWAY: All barbiturates are C.N.S. depressants, and interfere with the functions of other organs too—muscles, gut, respiratory, and intellect—in normal people. Two groups of people, the young and the elderly, may react differently to the barbiturates, and phenobarbitone may induce hyperexcitability and alterations in mood and behaviour in some middle-aged people.

DR. WELLS: I would confirm this, and, what's more, this unpredictability is good reason for not using barbiturates.

DR. ELITHORN: The whole point of medicine is to prescribe for individuals, not for a group.

DR. WELLS: Agreed, but if there are alternatives which have as effective but a more consistent action, then these are to be preferred.

DR. GALLOWAY: We mustn't forget the cast-iron indications for using barbiturates—such as in treating epilepsy and hyperbilirubinaemia of infancy (because of their enzyme-inducing properties), and for short-term anaesthesia. As to alternatives to barbiturates for hypnosis, there are the benzodiazepines used as hypnotics—of which there are 8 or 10, such as nitrazepam—and other drugs in the same spectrum such as the chlordiazep-

oxides, which have a more "tranquillizing" than hypnotic effect.

DR. ELITHORN: It's important to distinguish between these groups, because each has a function. Drugs can be used in diagnosis to distinguish different forms of the same illness: to take the hyperkinetic syndrome, for example, we can now tell from studying the response of the pupils which children will respond to amphetamines and which to barbiturates. Psychiatry has recently suffered from a tendency to throw diagnosis out of the window—which is nonsense. There are specific psychiatric defects in the nervous system needing specific treatment and we do not yet know which patient needs barbiturates and which the benzodiazepines.

CHAIRMAN: But this is some way away from the housewife who asks her G.P. for barbiturates because she wants a full night's sleep.

DR. ELITHORN: I accept that barbiturates have certain serious disadvantages, but many patients do not obtain sleep with the benzodiazepines though they do with the barbiturates.

DR. WELLS: Five of my hospital psychiatrist colleagues, as well as many more general medical consultants, do not feel that any of the barbiturates are superior to the benzodiazepines for ordinary night sedation.

DR. ELITHORN: Firstly, other psychiatrists wouldn't agree; secondly, Hinton has shown that barbiturates are superior as hypnotics and that this is not a dosage effect. Many patients need "knocking out": they're disturbed by their own thoughts or the noises around them. In general, barbiturates are better for this purpose, and the doctor is there to decide what's best for the individual patient.

DR. WELLS: Changing the radical may make a great difference in the property of a drug. So a patient who doesn't respond to nitrazepam may respond to flurazepam, and doesn't need a barbiturate.

DR. GALLOWAY: There's some evidence to support this. But the general properties of the drugs in the group are all very similar.

DR. WELLS: Are the effects dose-related? Could you get better sleep by trebling the dose?

DR. GALLOWAY: Not necessarily: there's an optimal dose for the individual patient for the particular drug. The quality of sleep with 50 mg of nitrazepam may be no better than with 10 mg—but there's much more "hangover."

DR. WELLS: So Dr. Elithorn is right in that some patients may not respond . . .

DR. GALLOWAY: Yes . . .

DR. WELLS: But we don't necessarily have to return to the barbiturates?

DR. GALLOWAY: Not necessarily: chloral or one of its derivatives would be a suitable substitute.

DR. ELITHORN: But chloral was, it was thought, made redundant by the barbiturates, which seemed to be better; now the barbiturates are being pushed aside by the benzodiazepines. This is why I keep emphasizing that all these groups of drugs have different properties.

DR. WELLS: I couldn't agree more. But I must emphasize that in our community we now have patients (hospital and psychiatric ones) previously taking hypnotics who are now sleeping without anything at all.

DR. ELITHORN: Patients can become habituated to any hypnotics.

DR. GALLOWAY: There's no good evidence for this. On the other hand, all of these drugs have the common property of producing a significant reduction in P_{CO_2} in patients with chronic lung disease.

Social Cost

CHAIRMAN: What about the social cost of the barbiturates?

DR. ELITHORN: It's a question of balance. In our permissive society suicidal gestures are accepted, but fundamentally it may be more socially responsible to make a successful attempt than an unsuccessful one. There are situations in which the

patient is justified in taking his own life. But it's not justified for a patient to involve a whole host of health services just to bring her husband to heel.

DR. WELLS: Should the doctor provide the wherewithal?

DR. ELITHORN: It's the doctor's responsibility to evaluate the risk of suicide. If I prescribe barbiturates for a patient, then I'm evaluating the risk. If that patient then allows the barbiturates to become available to a teenager, that's a different and important issue. I think that a ban on drugs creates addiction. No normal teenager would become addicted.

DR. WELLS: I challenge that. Experience in Ipswich has shown that six youngsters from normal middle-class families have become addicted.

DR. ELITHORN: The incidence of neurosis in the community is 8-10%—so that these six youngsters just represent what would be expected.

DR. WELLS: Boyd at the Middlesex Hospital has shown that adolescents like barbiturates: they abolish problems, and teenagers like the "buzz" after injection. More youngsters die from barbiturates than any other drug.

CHAIRMAN: Dr. Wells, are you pursuing all hypnotics or just the barbiturates?

DR. WELLS: No, the aim is to achieve an overall responsible attitude towards prescribing.

DR. ELITHORN: You're saying "you can't get responsible prescribing without a ban." You don't consider the quality of life of your patients and you haven't proved that they can do without barbiturates.

DR. WELLS: I have to live with my patients, I've followed them all up and I'd know if they'd suffered because of the change in our prescribing habits.

DR. ELITHORN: You and I see different patients. I see the patients who aren't go back to their G.P. and complain.

CHAIRMAN: Is Dr. Wells entitled to say this on the basis of this experience without a double-blind random trial, Dr. Galloway?

DR. GALLOWAY: Yes: his experience in the general practice situation is valuable—that many patients can do without

barbiturates. Equally important in all this is that doctors should be made aware of the indications for barbiturates, or the contra-indications . . .

CHAIRMAN: . . . which are?

DR. GALLOWAY: Liver disease, renal disease, obstructive lung disease, mental instability, porphyria, and extremes of age—and, thirdly, the doctor should be aware of the mode of action and the side effects of barbiturates.

DR. ELITHORN: We mustn't forget that the personality of the prescribing doctor is important. Dr. Wells may underestimate what he has achieved by force of personality which other doctors might not be able to. Some patients may get benefit from hypnotics although they don't realize that they need them. Drugs are artificial, but so is civilization: to deny patients drugs because they are drugs is illogical and inhuman.

DR. WELLS: Doctors are unlikely to do this, as it goes against their ethics and training.

DR. GALLOWAY: Dr. Wells has never suggested that this should be done: he's merely pointed out that there are alternatives to the barbiturates, and that once weaned off hypnotics many patients are found to be able to sleep without them.

CHAIRMAN: Would we agree that the dispensing of barbiturates could be tightened up—for instance, put on a schedule?

DR. ELITHORN: Yes, there should be more penalties for people who misuse them, and I believe that the doctor who over-prescribes recklessly should be punished: a lot of the trouble has been caused by a few rogue doctors. But an increasing number of regulations about what to prescribe would be destructive.

DR. GALLOWAY: A real tightening up would reduce the potential for addiction and drug abuse. What we are trying to aim at is rational prescribing, in which both the doctor and his patient are aware of the value of the drug as well as its potential for abuse. If we can reduce the side effects for the patient and complications for the doctor, so much the better. There seems to me to be a number of hypnotic drugs on the market which, though not necessarily equipotent with barbiturates, are adequate for most circumstances.

Surgery of Violence

The Tower of London Bomb Explosion

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Summary

After the detonation of a bomb in the Tower of London 37 people were brought to St. Bartholomew's Hospital. The explosion caused numerous severe injuries of a type rarely seen in peacetime.

Introduction

During the past few years St. Bartholomew's Hospital, situated

within the City of London, has received many civilian casualties resulting from letter bombs, a car bomb, and more recently from the explosion of what was probably a "carrier bag" bomb detonated inside the Tower of London. This has presented unfamiliar problems for the rescue services, the accident and emergency department, and the individual doctor.

Each of these explosions has produced its own pattern of injuries. The Old Bailey car bomb caused 160 casualties, most of whose injuries were caused by flying glass and metal and not directly by the blast, which was easily dissipated in the open air. On that occasion 19 patients were admitted to hospital, but only four had severe injuries.¹ The explosion within the confines of the Tower of London injured fewer people, but these injuries were generally much more severe. This bomb contained 10 lb (4.5 kg) of explosive and it had been placed alongside the wooden carriage of a 50 cwt (2500 kg) 18th century bronze cannon in the armoury of the White Tower. The room, which measured 68 ft (21 m) long 28 ft (8.5 m) wide and 20 ft (6 m) high, had stone

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