

EDITORIAL

DRUG UTILIZATION— A PUBLIC HEALTH PROBLEM



by DONALD C. BRODIE

IT IS GENERALLY AGREED THAT PROGRAMS FOR REVIEW and control of the prescribing and utilization of drugs are needed urgently. The need for control mechanisms is based upon several factors: a concern for public policy related to prescription drugs, the cost implications of increasing utilization, a general misuse of many drugs, the apparent irresponsible prescribing habits of many physicians, the lack of scientific knowledge of the action of many drugs in people who are ill, the inefficient utilization of manpower in the existing pattern of drug utilization and a certain psychological dependence that society in general has on drugs. ("Drug utilization" is defined as the prescribing, dispensing, administering and ingesting of prescription drugs.)

When one realizes that these and other factors contribute to a problem of drug misuse it is not reasonable to believe that any single plan of control can be devised. Effective control will come slowly, and it will be manifest through the net result of control functions that are instituted at each step in the complex multiple-step pattern in the prescribing, distribution and use of drugs. No one will deny that the development of an over-all effective control system will be both involved and complex.

There are several key issues that can be isolated from this enormous and seemingly unsolvable problem, each of which must become a center for one of the major approaches if effective control of drug utilization is to be achieved. These issues include the following: (1) Drug Utilization—A Public Health Problem, (2) Interdisciplinary Review—A Test of the Health Team Concept, (3) The Pharmaceutical Industry—Its Contribution to the Control of Drug Waste and (4) Mechanisms to Facilitate Study and Research of Drug Utilization.

When one attempts to estimate the full impact of the misutilization of drugs upon national life he finds that statistical data upon which to base a quantitative estimate are not available. However, projections can be made from some existing data which disclose the order of magnitude of the financial impact in instances where the results of drug therapy are less than optimal.

For example, the 1.5 million annual hospital admissions that Cluff estimates are due to adverse drug reactions can be refined further, as follows: the average length of stay in a teaching hospital in the United States is estimated to be approximately eight days; the hospital stay of patients whose admission is caused by adverse reactions is roughly 40 percent greater than the average stay in the same hospitals; the average daily rate in community hospitals is approximately \$60. Using these figures, one finds that the cost of hospitalization due to adverse drug reactions is roughly \$900 million, to which must be added the cost of diagnosis and treatment. In addition, the costs incurred are further increased when one takes into account that about 10 percent of hospitalized patients develop adverse drug reactions during hospitalization. This sum does not account for loss of

life, loss of income or partial loss of work capacity. Adverse drug reactions cannot be eliminated as a possible event in drug therapy but the impact that they have on public health is such that major efforts should be made to obtain scientific information that will lead to a minimal incidence rate. Cluff states further ". . . . we recognize a sizeable public health problem."

It is common knowledge that much drug therapy avails little or nothing in terms of patient benefits. This situation can be described as the ineffective use of drugs—"drug waste." No one knows what a reasonable estimate of the cost of "drug waste" might be. If one assumes that 25 percent of drug therapy is ineffective, for whatever reasons, he might attach a value of between \$1-\$2 billion to it on the basis that the annual national prescription cost may be about \$6 billion. Many would argue that these figures are too conservative, as crude as they are, but would support a generalized projection that the national waste from all sources of the misutilization of drugs is a multi-billion dollar item. Since these figures reflect less than an optimal level of national health, they point to the existence of a public health problem. When one finds in the literature such titles as "The Diseases Drugs Cause" and "Diseases of Medical Progress," he realizes that critics and experts are recognizing the problems caused by present-day patterns of drug utilization.

By both quantitative and qualitative criteria, one is forced to conclude that the utilization of drugs, even in view of their miraculous contribution to man's well-being, is actually working in a contrary direction and at an alarming rate. The time has come when it must be recognized nationally that a public health problem exists from the misuse of drugs.

It is recommended

THAT the United States Public Health Service institute a nation-wide program of public education designed to: 1. alert the general public in an appropriate manner to the existence and magnitude of the problem created by the misuse of prescription drugs by the public, 2. discourage self-medication and the dangers of both over- and under-utilization of prescription medication, 3. challenge the health professions, medicine and pharmacy in particular, as well as the pharmaceutical industry to a responsible commitment for improving the control of the utilization of all drugs, 4. find ways to neutralize the impact of mass media advertising which tends to create a psychological dependence upon drugs as a palliative for the strains and stresses of contemporary society, 5. impress upon children the fact that drugs are agents which contribute to the achievement of "good health" and as such should be respected, not feared, nor abused.

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