may be omitted. It is hoped that *ADE* thus will provide a convenient reference from an authoritative source to give the practicing physician the most important information to help in his prescribing practices. For other details, for basic data, and even for varying points of view, the physician is encouraged to consult and compare the many sources of information on drugs he uses: journal articles, standard textbooks, official compendia, manufacturers' labeling, prominent bulletins and periodicals on drugs and therapeutics, and symposia.

The sample chapter that follows is presented both to familiarize the physician with the Council's plans and to invite comments and recommendations. Most of the book is in a stage of preparation that still permits flexibility in content and design, and subsequent editions are intended to follow. Therefore, since the Council's aim is to meet the needs of its physician readers, responses to the attached questionnaire can have an important influence on the further development of the book. The book is expected to be published in approximately one year.

The accompanying chapter on "Anticonvulsants" is not completely a self-contained unit. The reader will notice several cross-references that presently are only hypothetical, as the associated material is still to be published; nevertheless, they are included to help illustrate the design of the forthcoming book.

After reading the sample chapter, please fill out the questionnaire following page 710 and return it to the AMA.

Chapter 29

ANTICONVULSANTS

Anticonvulsants are used to terminate certain acute convulsive episodes, but their principal use is prophylactic to reduce the number and severity of seizures in patients with epilepsy. Seizures may be classified in various ways; for therapeutic purposes, the following is convenient: major motor (grand mal or focal), petit mal (absence), minor motor, and psychomotor.

Although their specific modes of action are not fully understood, a number of drugs have anticonvulsant activity and are effective in preventing or reducing the frequency of seizures in most patients with epilepsy. The objective of therapy is to control the seizures and at the same time maintain the patient in as normal a physiologic state as is possible. Drug therapy must be individualized for every patient; within the limits of adverse effects and toxicity, the correct dosage of any drug or combination of drugs is that which is "enough" to accomplish the stated purpose. The choice of drugs depends upon the type of seizure. Further, many patients with epilepsy have more than one type of seizure, and drugs effective for one of these types may not help or may even unmask another. The most common causes of failure of treatment are improper classification of type of seizure, failure to recognize a progressive neurologic disease, failure to use the proper drugs or proper dosages, too frequent changes in drug therapy, premature withdrawal of drugs, poor indoctrination of patients, and failure to recognize the social and economic needs of patients. With the exception of patients who do not adhere to their prescribed regimen, the largest group of failures is related to the administration of insufficient dosages of appropriate drugs and failure to use two or more of them concomitantly when they are needed.

The patient should be started on a small or moderate dosage of the drug that is considered to be suitable. This dosage should be increased gradually at intervals until the seizures are controlled or until the appearance of minor toxic symptoms makes further increases inadvisable. If more than minor toxic phenomena develop, the medication should be withdrawn and another substituted. When the drug used initially is well tolerated but only reduces the frequency of the seizures, another compound should be added. The dosage information given with the subsequent discussions of individual drugs falls within the ranges given in official compendia, those recommended by one or more manufacturers, or those considered reasonable by other authorities. However, the size, age, and condition of the patient, his response to treatment, and the possible synergistic or antagonistic effect of concomitant medication must always be considered. Reductions in dosages of anticonvulsants for children in comparison with adult dosages are not always as great as would be expected from the difference in age and size.

Phenobarbital is still considered the mainstay of anticonvulsant therapy; it is among the safest of the available drugs and is useful in the management of most types of seizures. The other long-acting barbiturates, **mephobarbital** [MEBARAL] and **metharbital** [GEMONIL], are alternate drugs, the actions of which, with proper dosage adjustment, closely resemble those of **phenobarbital. Primidone** [MYSOLINE], which is chemically related to the barbiturates and has similar action, is frequently useful in refractory epilepsies, especially of the major motor and psychomotor types.

The hydantoins, such as **diphenylhydantoin** [DILANTIN], **mephenytoin** [MESANTOIN], and **ethotoin** [PEGANONE], are used primarily in major motor and psychomotor seizures; they are usually not effective in treating petit mal. They may be effective, as may the barbiturates, in certain nonconvulsive epileptic equivalents, a syndrome of recurrent autonomic symptoms associated with an abnormal electroencephalogram. **Diphenylhydantoin** is considered the drug of first choice among the hydantoins; it is safer than **mephenytoin** and more effective than **ethotoin.** However, each of these alternative hydantoins may be considered for trial in special circumstances (see the individual drug evaluations following this introductory statement).