

there was a five-fold increase in the sales of the drug and by 1960, enough chloramphenicol was being distributed, and presumably used, in the United States to supply 3,732,416 persons with 10 Gm. courses of the drug! (These data were supplied through the kind cooperation of Dr. Harry Carnes, Parke Davis & Co., Detroit, Mich.)

To those of us who see cases of aplastic anemia following the use of various possible etiologic agents, chloramphenicol stands out as the most important single historical factor. To be sure, evaluation of histories and even of statistics relating to both the incidence of aplastic anemia and of chloramphenicol as an etiologic agent is difficult. Nevertheless the importance of the chloramphenicol-aplastic anemia relationship persists, and one must naturally be concerned with the possibility that an increased incidence in aplastic anemia may result as use of the drug increases so rapidly. Is the pharmaceutical house which introduced and popularized the use of chloramphenicol to be taken to task? This seems unfair for there can be no question that this respected company has gone to every effort to ferret out statistics of case reports, to carry out experimental work in various animals and even to note the effects of marrow transplantation in chemically induced aplastic anemia of monkeys.

Is it the physician, then, who is largely responsible? In a way he is, for without his prescription, the drug would not be administered. Certainly, if he regards chloramphenicol lightly, to be dispensed like aspirin, for every minor cold and respiratory infection, he is not without blame. But are there certain mitigating factors? Some say that a person ill is a person to be treated! The urge to make a person comfortable and to cure his illness as quickly as possible is an urge each of us has. It follows then that a good antibiotic of the broad spectrum variety and which can be readily administered is something to be used at every opportunity. This is part of the mores in this affluent society of ours. We have potent medicines; the patient is ill; we must treat! The days of simple herb medicines and of simple galenicals have long since passed. More often than not, the newer synthetics, most of them composed of molecules with benzene rings and nitrogen, NH, NH₂, or NO₂ groupings—are used, and all of them, it should be said, are potentially harmful.

What then can be done? A few suggestions may be offered: (1) Physicians must be warned, and in no uncertain terms by means of articles, editorials, meetings, announcements; not once, but repeatedly that chloramphenicol is not only a potent antibiotic but apparently an antimetabolite as well, having effects not only on bacteria but on the bone marrow. (2) By some means, whether by regulation or by self-discipline, promiscuous use of the drug should be avoided and its use restricted to impelling circumstances, i.e., for conditions in which no other antibiotic is currently effective. One realizes that this is more easily said than done, knowing the physician's individualistic nature. (3) The patient and the patient's family must be warned, either by the physician or by the druggist that this is a powerful drug; that it should be used only once; that its repeated use may result in serious blood reactions; that it should not be kept in the bathroom cabinet and used again if an apparently similar disorder supervenes. (4) The manufacturing drug house should instruct its detail men, our ubiquitous mentors, not to minimize the dangers of the drug, and to emphasize its value for certain specific conditions, and not for the whole gamut of infectious diseases. The journal advertising could be made more forceful regarding the necessity for guarding against use of the drug indiscriminately, and especially in minor infections, or in repeated courses; or off the bathroom closet shelf.

It might be wise for the patient or his family to have some knowledge of what antibiotic is being used in a given case. Perhaps we physicians might also consider, at least for many of the acute, self-limited infections, the more conservative course (radical by present-day standards) of giving no potent medications at all, but rather such symptomatic care as aspirin, fluids, and the like. After all, the body defenses are usually capable of handling most acute upper respiratory infections.

In any even, something must be done to reduce the incidence of grave insult to the bone marrow produced by some of the antibiotics. The practicing physician would do well to think twice before prescribing a potent antibiotic and to ask himself "Is this drug really necessary?"

WILLIAM DAMESHEK, M.D., *Boston, Mass.*