

preparation was expensive. I looked into this personally also because my wife was prescribed molybdenum with iron. I did not get it, and I was reprimanded by the obstetrician.

Still today iron preparations are touted and prescribed which contain an enormous array of ingredients at enormous cost when only the cheap iron salt is needed.

Iron preparations are on the market which contain all sorts of metals, copper, manganese, ascorbic acid, intrinsic factor, vitamin B-12, a colossal array of stuff. These are expensive. Iron deficiency anemia can be treated with ferrous sulphate, which is very cheap.

Senator NELSON. Do these other substances have any affect at all?

Dr. MAGEE. If an animal is copper deficient it gets anemia; but it is very, very difficult indeed to produce copper deficiency.

There are parts of the world, in South Australia, for example, where sheep grazing on a copper deficient pasture, get copper deficiency, but apart from that, I never have heard of a spontaneous copper deficiency in man or animals.

Vitamin B-12 treats pernicious anemia, for pernicious anemia the quantities present in these tablets when given by mouth are useless.

Mr. GORDON. Are you saying vitamin B-12 cannot be given for anemia?

Dr. MAGEE. No; but it cannot be given orally because the reason people have pernicious anemia is that they can't absorb vitamin B-12.

The vitamin business, in my opinion, is largely fraudulent and based on the gullibility of both the public and the physicians. An added difficulty to me in the assessment of advertising material is the knowledge that in the past this has been shown to be inaccurate and misleading. Since this has occurred one cannot help but be suspicious and therefore be wary of a recurrence.

There are examples of advertising which, as pointed out in the hearings before the Kefauver committee, in which less than a proper account of toxicity, and side effects had been presented to physicians.

In every medical school pharmacology department in the country, that I am aware of, only generic drug names are used, in teaching. It is impossible to teach in any other way. The alternative is confusion. We heard this morning that there may be 50 different trade names for one drug, and this, of course, is true. The relationship between one drug and another is hidden, by trade names, as is the fact that some chemicals have a physiological function. Who would guess, for example, that Levophed is norepinephrine, which is a physiological substance occurring within the body. I have met practicing dentists and physicians who did not know that Levophed was a physiological material.

I am sure that there can be very few pharmacologists anywhere who have not been telephoned at one time or another to explain, for example, that the dose and the side effects of Luminal, a trade name, and phenobarbital are exactly the same because they are the same substance. The only difference is the cost.

In using generic names in teaching we hope, or at least many of us do, that our students will use them in prescribing. They will know more about the science of therapeutics if they do, and they will save their patients money. This is not denied even by companies selling under trade names. The sick have no sales resistance, and the cost of their treatment should be a prime concern, in my opinion, of the physi-