

(6) The average number of different drugs administered during hospitalization to patients on the medical service was 10 to 12, ranging as high as 42. That number now should be increased to 52. The drugs given most often were sedatives and tranquilizers, analgesics, digitalis preparations and other cardiac drugs, antacids, and anti-infective drugs, in the order listed.

I think that a part of statement No. 7 perhaps ought to be combined with this, and that is that the patients receiving the most drugs were sicker than those receiving fewer drugs, at least as measured by duration of hospitalization and mortality rate. This is pretty much as you would expect that the sickest patients are the ones who are going to get the most drugs in the hospital.

Nevertheless, the point here that I wish to emphasize is that patients receive a large number of medications in the hospital, and indeed the number at times seems excessive—52 different drugs, which I think is a little hard to justify.

In addition to this statement, I think that it is important to point out that at the present time I know of absolutely no data to indicate the number of drugs that the patient outside of the hospital uses which he buys over the drugstore counter.

My own personal experience about this and my personal concern about this was recently reinforced when a pharmaceutical representative came to my office and I was speaking to him about what I considered to be the excessive use of nonprescription drugs by patients outside of the hospital, and he was intrigued by this and went home and counted the number of drugs he had in his drug cabinet at home, and he had 90.

Whether or not this is illustrative of the public at large I have no idea, but I have made it a practice over the past few years whenever I visit a friend to go to their bathroom and look in the drug cabinet, and it is impressive to note the abysmal chaotic characteristic of non-prescription drugs that families ordinarily keep in their homes.

The next point (7). When increasing numbers of drugs were given to patients, there was an increasing likelihood of adverse reactions occurring to at least one drug during hospitalization. Seven percent of patients in the hospital given 6 to 10 different drugs had an adverse reaction, while 40 percent of patients given 16 to 20 different drugs had an adverse reaction.

This is as much as you might expect, that you increase the number of drugs that the patient takes and you increase the total number of reactions that you can anticipate observing. The problem here is that the rate rises so rapidly it almost becomes logarithmic, and I think one must raise the question as to whether or not there are other factors than just additive which are important in increasing the rates of adverse reaction to drugs in patients taking many medications. Our present interpretations are that at least one of the factors which may play a role here is the simultaneous administration to the patient of more than one drug, resulting in an inadvertent interaction of two drugs, resulting in an ill effect that neither drug alone might have produced.

I can give you certain examples of that. One of the most common interactions that we observe resulting in ill effects in patients is the simultaneous administration of a drug such as digoxin or digitalis