to a patient simultaneously receiving or subsequently receiving a diuretic such as chlorothiazide. The mechanism of the interaction here is primarily because the chlorothiazide reduces the serum potassium level and this potentiates the reaction of digitalis.

One other such example is the simultaneous treatment of the patient with streptomycin and kanamycin for infection. Both have significant toxicity upon the eighth nerve, the hearing nerve, and indeed this still is an important cause of deafness in such patients.

In addition, we see patients who are treated with more than one drug for premedication in a variety of instances causing ill effects. I would like to cite for you here one specific example to illustrate the point.

During the course of our studies we observed one patient, for example, who was in the hospital because he had chronic pulmonary disease and he had a lesion in his lung. The lesion in the lung needed investigation because the physician thought it might be a tumor. So he ordered that the patient be bronchoscoped—which is putting a tube down the breathing tube—and taking a look in the bronchial tree to see whether or not he can see a tumor or any other lesion.

Premedication for bronchoscopic examination commonly employs the use of a barbiturate narcotic such as Demerol, or frequently another agent which may include atropine, phenothiazine, or other drugs. He was given such medication prior to his bronchoscopic examination but he developed respiratory arrest. He stopped breathing. He was given artificial respiration and recovered but it was decided he should not be bronchoscoped because he couldn't be without this premedication.

The physician still had no interpretation as to the nature of the man's lung lesion. It was decided to do a bronchogram, which is putting a dye down into the bronchial tree and taking an X-ray of the chest.

But unfortunately, the physician prescribing the bronchogram didn't realize it required the same premedication as did the bronchoscopy. The three medications were given as premedication. The patient not only developed respiratory arrest but also developed cardiac arrest and died.

This illustrates the synergistic effect of different drugs which have a very profound effect upon the respiratory-cardiac functions in an individual who is inordinately predisposed to reaction. This gives you some indication as to the nature of the drug mixtures or the administration of more than one drug to a patient at a time which can result in ill effects which neither drug alone necessarily would produce. Obviously, in a patient who is receiving 16 to 20 drugs or more, one correspondingly increases the risk of synergistic drug reactions that can produce ill effects.

(8) Some of the factors influencing rates of adverse reactions to drugs were: renal failure, gastrointestinal disease, previous history of drug reactions, allergic disease, acute and chronic infection, liver disease, in addition to other factors mentioned above.

Interpretations: From the observations we have made, the following interpretations seem warranted: