bacteria. Do you mean that they simply broadened the promotion to cover a wider spectrum of diseases simply because it was effective against staphylococci?

Dr. KIRBY. No. The spectrum was broadened in that tetracycline in the mixture covered many bacteria, novobiocin covered some others, but the chief additional one that novobiocin covered, in fact probably the only one, was staphylococci, and at that time, 10 years ago, many staphylococci were resistant to tetracycline, so they were broadening the spectrum of bacteria in comparison with the tetracycline alone.

Senator NELSON. But if the combination were prescribed for staphylococci infection, and the combination includes tetracycline, tetracycline in that combination has no effect at all, then, does it?

Dr. KIRBY. No. If they are resistant to tetracycline, then the patient was being exposed to tetracycline when it was doing him no good at all.

Senator NELSON. And as a consequence of exposure to tetracycline or any antibiotic, is there a risk of developing sensitivity to that antibiotic?

Dr. KIRBY. Oh, yes. There is developing sensitivity to it, resistance to it; all of the things that one can develop. Undesirable effects are there whenever you give them, so when you give two of them, you are exposing patients to all of the undesirable effects of both of them.

Senator NELSON. So in a case in which the combination was prescribed for staphylococci infection, the tetracycline then was detrimental to the patient, I would assume.

Dr. KIRBY. Yes, I think we can say it was. It was doing no good and it was doing potential harm.

Senator NELSON. Thank you.

Dr. KIRBY. It has been widely used and in some years has had sales in excess of $20 million.

However, experts in the antibiotic field have through the years been very critical of Panalba. To many of them it meant combining a major league with a minor league drug and considering the result a new, superior product. Panalba is clearly effective in the sense that thousands of patients with infections who have received it have recovered. However, many of these are viral infections that run a benign course uninfluenced by antibiotics. Where bacteria are involved the response has been no different from that observed in thousands of similar cases treated with tetracycline alone.

Senator NELSON. There is no viral infection against which any antibiotic or any other drug is effective?

Dr. KIRBY. Not of the true viruses at the present time, no.

Mr. GORDON. Doctor, is the fact that the patients would have gotten better anyhow, the reason why many doctors say that Panalba works?

Dr. KIRBY. Well, I think so. Panalba has been used chiefly for respiratory infections and 85 or 90 percent of these are due to viruses and the antibiotics have no effect at all.

Now, this is not saying that no antibiotic should ever be used under these circumstances because the doctor often cannot tell whether it is a viral infection or a bacterial infection, and he gives an antibiotic to protect the patient. But he cannot tell which it is and the patient gets well no matter which it is and he is in no position to really conclude