It went further to point out that the novobiocin in the combination product was there at a half a dosage, and that this was an irrational part of the mixture.

It made a further finding that there were no unique circumstances in which patients suffered from a combination infection bugs that would be uniquely susceptible to tetracycline and novobiocin. A claim that the combination was uniquely effective was the basic rationale of the company for promoting the drug.

And so the scientific evidence to support the claims was found to be inadequate.

Now, that is the basis on which we took action. As to the basis on which the company takes legal action, we will have to wait and see in the paper.

Senator NELSON. As I understand it, at least from those findings that I have read—I haven't read them all—and correct me, Doctor, if I am wrong—in the fixed combination antibiotics, I understand it to be a health question in every single one of them, because even though the combination may effectively treat the disease, you have exposed the patient to an extra antibiotic to which he may be sensitive, and this is an unnecessary health hazard, is that correct?

Dr. LEY. In general, Mr. Chairman, that is a correct summary of the situation. We believe—and our medical consultants believe—that unnecessary exposure of a patient to an antibiotic which he does not need to cure his infection exposes that patient to the potential and sometimes very serious risk of making that person allergic to the second antibiotic which he does not need. Thus, at some future time the patient, given the second antibiotic, may, instead of getting well, experience a very severe allergic reaction, possibly even a fatal one.

There are several levels of safety questions involved with the combination antibiotics, Mr. Chairman. We have not accentuated the one you have raised in pointing out that we feel that there are different time frames for our action in this area.

For example, the case that we have mentioned several times today, Panalba. Approximately one out of every five patients who receives the novobiocin component of Panalba is expected, on the basis of literature, to react with a hypersensitivity or an allergic type reaction. Most of these are merely irritating. There is a smaller proportion of the patients who experience temporary but very severe liver damage as a result of the novobiocin component.

There is a still smaller number that experience the type of blood reaction one sees with chloramphenicol. We believe that a patient who needs only tetracycline should not be exposed to these additional hazards which are attributable to the novobiocin component. We have no substantial evidence to support that novobiocin produces any benefit.

Mr. DUFFY. Doctor, could you provide for the record the number of cases that might result from some of these side effects, is it thousands or hundreds of thousands or what?

Dr. LEY. In terms of the allergic reactions, there must be literally hundreds of thousands. We will have to get some marketing estimates and extrapolate on the basis of the accepted 20-percent estimate. But I must again, in all fairness, say that many of these reactions are rela-