And who does what is a rather difficult question for me. The answer is a difficult one. But I think without any question this is an area I should have mentioned in greater detail. I think much more has to be done, and I think we have to play an important role in stimulating this research, either we do it or we stimulate industry to do it.

But I think without any question this is one of the most important areas.

Senator NELSON. Again, this is a legal question: What authority does the FDA have to require drug companies to do additional research after a drug has been placed on the market? In this case dose level studies?

Do you have authority to require such data?

Dr. EDWARDS. I would like to have Mr. Goodrich answer that. I am not sure about our authority, but after all, in approving new drugs, we have to evaluate and judge the adequacy of the clinical investigations that have led up to the marketing of this drug, and in our judgment, if these are not adequate, then I think we certainly can go back to that particular company and say more study needs to be done in these particular areas; but legally, I would like to turn to Mr. Goodrich.

Mr. GOODRICH. Our legal authority is to require the companies to make either a regular or special report. A report could be called for on any phase of the safety decision. If we attempt to require the research, our ultimate administrative step would be to withdraw approval.

We have legal authority to withdraw approval at any time we find that there is a lack of adequate evidence, either of safety or of effectiveness.

So what would have to be done would be to identify with the company those areas in which additional research was needed, some kind of time within which this could be done, and say that if it were not done, they would be risking the loss of the product by the withdrawal of approval.

We do not have any direct authority to say do this research, but the ultimate withdrawal possibility does facilitate a good deal of research.

Senator NELSON. In the specific case at hand, or with any drug, a potent one, anyway, extensive use over a period of years develops information that could not have been developed by FDA, so you have a case here where thromboembolism was proven quite early, and statistics have accumulated to support it.

Do you have the authority to say it is pretty clear that a drug could be developed with less dramatic side effects, a lower incidence, therefore you must proceed with some protocol for investigating this possibility?

Mr. GOODRICH. We think so. But as I say, our ultimate, if they refuse to do it, our ultimate step would have to be to withdraw approval.

Senator NELSON. I understand.

I would like to ask another question in the research field. This concerns the report based on the workshop sponsored by NIH on "Metabolic Effects of Gonadal Hormone and Contraceptive Steroids." In the preface on page 9, I quote: