

its safety for use as directed. I can assure this committee that we would not have requested consideration for approval of this drug if we had thought it was not safe.

The final overall assessment of safety can only be assured after extensive experience. For example, aspirin and related compounds which have been used for over 50 years are even now being reassessed with regard to their potential long-term effects on the kidney.

Information on the safety of indomethacin is outlined in the official product circular. So long as the physician is aware of the effects that have been reported—those that appear more frequently and those only rarely noted—we believe it can be prescribed with the proper assurance that the potential risks can be weighed against the benefits to be obtained.

We are proud of indomethacin. We know through personal experience what it means to many, many people. I am confident, looking ahead, that the scientific teams at Merck that produced indomethacin will develop further advances as they continue to search for the causes of these crippling diseases.

I will be happy to answer your questions.

Senator NELSON. Thank you, Dr. Lawrason. The committee appreciates very much your testimony for our record.

Senator Hatfield?

Senator HATFIELD. I have just one question, Doctor.

On page 6, you were saying in the third full paragraph:

We do not believe a wholly-satisfactory double-blind study for demonstrating the effect of a drug in treating rheumatoid arthritis has yet been designed.

On page 10, in talking about your clinical research, you say:

We will subsequently supplement our basic clinical evaluation with the best double-blind control studies we could devise.

I do not quite understand what the hangup is on devising or having now made effective double-blind studies. Why is it so difficult? Why do we not have it now and why do you feel you can devise one that has not yet been done?

Dr. LAWRASON. One of the problems of the studies with rheumatoid arthritis involves the quantification of the subjective measurements; that is, measurement of response in the patient. We do not believe, as I stated, that there is yet an ideal format for design of a double-blind, controlled study. Dr. Mainland and his group in the cooperating clinics point out themselves that their efforts in this direction and their studies with indomethacin are part of a long-term effort to design a truly controlled and adequate study. But we are also in the same process. In the 100 or more such studies that we have developed over the past 2 years and are ongoing now, not all are the same. We do not claim to have the ultimate design. But this is our purpose and this is our job, to find the very best study design that can give objective measurements and results.

Senator HATFIELD. How many drugs are tested by the double-blind study? How broadly used is this technique?

Dr. LAWRASON. Oh, this is a widespread control method, using the double-blind. It is particularly effective in getting rid of physician or patient bias where measurement is in part subjective. Some diseases are easily studied this way and some are not.