

in whom insulin cannot be used because ofsimilar factors.

When used in asymptomatic patients whose elevation of blood glucose cannot be controlled by the above measures and in whom insulinunanswered scientific question."

* I have substituted the word hyperglycemia for asymptomatic here because I do not consider that the UGDP study, with its limited range of population and limited measurements is decisive in determining whether hyperglycemia is related to microangiopathy. Also with a high renal threshold for glucose prolonged hyperglycemia of major degree may be present without symptomatic glucosuria.

II THE EFFECT OF THE STUDIES OF THE USE OF ORAL AGENTS ON MEDICAL PRACTICE AND PROBLEMS OF TRANSLATING RESULTS OF RESEARCH TO PRACTICE

Judging by the prescription rates for the various oral agents, the impact of the UGDP study on general practice has been negligible. It is ironic that the sale of phenformin, the agent which has been most clearly shown to produce tachycardia, hypertension, and a significant increase in both cardiovascular and overall mortality has increased in sales (up 5% from '72 to '73). There are suggestions, however, that the use in the vicinity of large medical centers has decreased. The study has provoked a great deal of inquiry into the use and limitations of prospective randomized clinical trials. The Reasons for the minimal impact have been discussed by others in detail before this Committee, and I will mention only a few:

1) Both physicians and patients look for quick solutions in the form of pills or injections. This is understandable because correction of our many health problems today calls for alterations in life style which are not easy to accept and which often call for resources which most physicians do not have available. It is the large problem of