

other measures would be taught as well. Since the cost of insulin is considerably less per patient than oral hypoglycemic agents, there would be a decrease in total cost.

The issue of the clinical use of research information is exemplified by the mixed reception of the results and recommendations of the UGDP study. Why, one may ask, are there delays in the transmission of research data to its clinical applications?

There are several reasons: One: Early research data may be presented initially to select groups in research societies and published in journals which are read by only highly trained specialists. In addition, most articles are not published for at least 6 months after they have been submitted. Two: Further delay occurs because of the need for clinical testing. Three: When the information is finally released, there are varying degrees of receptivity and understanding. Here we deal with a number of variables which include initial training and continuing education of physicians. Medical educators, both basic scientists and clinicians, and medical societies must play an important role in narrowing the gap between delivery of research information and its clinical application.

Corrective measures in this regard are most likely to be effective if medical students, fellows, and house officers in training are adequately prepared to receive and evaluate research data. This requires improvement in the teaching of basic science, biostatistics, and clinical pharmacology during medical school and postgraduate training programs. As a teacher of students and physicians in training during their formative years, one is aware of the need to stimulate them to share in the joy of learning. Such an effect develops and fosters intellectual curiosity, critical thinking, and the self-discipline required for continued intellectual development throughout their careers.

During their period of formal training, they will recognize the need to continue their education once they embark upon their careers as practitioners. Reading current literature, attending medical meetings, utilization of self-educational material, and attending specific postgraduate courses are effective approaches. Physicians should be urged, if practicing in groups, to exchange information and ideas with peers. Journal clubs and conferences could be developed. As a former practitioner, I found that becoming a part-time teacher at a university affiliated hospital was an excellent learning experience and a considerable stimulus to encourage my own intellectual development. Medical schools should encourage suitably trained physicians to participate in clinical teaching.

The task of communicating with the well-established practitioner is more difficult. Those who are well trained in various major specialties generally keep abreast of new developments in their area of interest and expertise through many of the educational methods previously mentioned. Unfortunately, there is another group of physicians who, because they are either overworked or inadequately trained, find or take little time to read or attend educational meetings, and rely upon ill-informed pharmaceutical company representatives and medical throwaways for their sources of information. Many of them observe that because of their lack of scientific background and the tremendous