Important Advances in Clinical Medicine

Epitomes of Progress—Preventive Medicine and Public Health

The Scientific Board of the California Medical Association presents the following inventory of items of progress in Preventive Medicine and Public Health. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in Preventive Medicine and Public Health which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Preventive Medicine and Public Health of the California Medical Association and the summaries were prepared under its direction.

Reprint requests to: Division of Scientific and Educational Activities, California Medical Association, 731 Market St., San Francisco, CA 94103

Clustering of Hodgkin's Disease

THE USE OF CLUSTERS of cases with a similar clinical presentation for the development and testing of etiological hypotheses has been a major tool of epidemiology at least since the time of Snow and his classic work on cholera.

Classically, clustering of cases in time and space has been observed for infectious diseases; the degree of "contagion" traditionally relates to the several factors including the virulence and mode of spread of the organism, the incubation period and period and degree of infectivity of the host and the number of susceptible contacts during the infective period. Attempts to transfer the concept of disease clustering formulated from the study of acute infectious disease to the study of chronic diseases, such as cancer, has led to considerable confusion and misinterpretation. Most of the problem has centered on attempts using the time space method to establish viral causes for three types of cancer occurring in children and young adults: leukemia, Burkitt's lymphoma and Hodgkin's disease. In one study, Alderson and Nayak evaluated the cases of 737 patients in whom diagnosis was made in Manchester, England, from 1962 to 1968. They found no evidence of clustering using Knox's statistical test, with a variety of space and time differences. Here the investigators were concentrating on the date of diagnosis, with the attendant and very unlikely assumption of a brief latency period. In another study, Kryscio and colleagues examined patients in whom Hodgkin's disease was diagnosed in Connecticut from 1940 to 1969. No evidence of clustering was found.

Clustering of Hodgkin's disease has also been reported among students of high schools. The most important of the latter was reported by Vianna and colleagues of Albany, New York. Working outward from an anomalous situation in which a small number of cases of Hodgkin's disease occurred in friends in an Albany high school, they "linked" 31 of 208 patients in whom diagnosis was made from 1950 to 1970. There were nine instances of possible case to case "spread" and 25 possibilities of case to contact to case transmission. Unfortunately, their control group was completely inadequate since it was chosen only for the linked patients rather than for the entire group. In addition, since any patient with Hodgkin's disease has a 20 percent or greater probability of contacting another patient with the disease over a ten-year period by chance alone, the findings were not, in fact, especially surprising.

Prompted by this report, Kinlen and his colleagues have recently completed a case-control study in Oxford, England. They identified all 97 patients under the age of 40 with Hodgkin's dis-