(10) Sir Austin Bradford Hill (1962) Statistical Methods in Clinical and Preventive Medicine Edinburgh: E&S Livingstone

Preamble

Bradford Hill wrote the most influential text on medical statistics in 1937, and was instrumental in designing and conducting the MRC's randomised clinical trial of streptomycin for pulmonary tuberculosis about ten years later. Apart from the symposium mentioned above (see no. (7)), this is his first comprehensive text to encompass clinical trials, though a chapter on them did appear in the sixth edition of *Principles of Medical Statistics* published in 1955.

Aims

My aim in bringing these various papers together is not, of course, to produce yet another textbook of statistical method. In this respect I have already endeavoured to meet the needs of the nonmathematically minded worker in my Principles of Medical Statistics, while for the more mathematically minded many excellent texts are available. Here I attempt to show the method in daily use in research and thus to expound a "philosophy", a means of seeking answers to the questions that typically arise in clinical and preventive medicine. There is, I seek to show, more to the statistical method than a familiarity with formulae, a test of significance and an electronic computer. There are the fundamental, and usually far more difficult, problems of how to plan observations and experiments, how best to carry them out and how with accuracy and clarity to present the results. The book falls naturally into three sections. The first deals with the problems of simple but strictly controlled clinical trials of new (or old) treatments of the sick, a proper knowledge of which is a sine qua non in clinical medicine. The second part discusses the corresponding problems that arise in the field trials of vaccines designed to prevent disease. The third takes up the most difficult problems of all the epidemiology and aetiology of disease where almost invariably we are powerless to experiment and, proceeding by observation, must usually endeavour to disentangle an involved chain of causation and thus reach most probable conclusions (Preface, pages v and vi).

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Bibliography

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