Clearly the routinely performed crude person-time analyses are incapable of providing enough insight to unravel the part played by each factor separately in the aetiological process.

A better understanding of the carcinogenic process can lead to a refinement of the propositions used to justify the construction of analytical models that may be applied to the data. Among latency, other issues to be considered are: diminution of risk after termination of exposure, bioaccumulation of dose, existence of threshold levels due to dose dependent metabolism breakdown of DNA repair mechanisms, and the possible existence of a limited pool of susceptible subjects.

If we knew with certainty that only a small percentage of a cohort (say < 1%) was susceptible to the carcinogenic potency of a certain chemical this notion would have a major impact on the model to be applied to the data.¹

Another issue that should be kept in mind in the analysis of dose response relations and not mentioned in our article is the often encountered steep decrease in exposure concentrations over time. Occupational exposure to vinyl chloride, for instance, has been estimated to have decreased over time from 1000 ppm between 1945 and 1955 to 300 and 400 ppm from 1966 to 1972 and even to concentrations smaller than 5 ppm after 1973.² Evidently handling dose defined as duration of employment in the case of occupational exposure to vinyl chloride may be a gross oversimplification and may lead to an unrealistic analysis of the dose response relation.

It will be a long time before epidemiologists can formulate and test models encompassing all these issues.

References

- 1 Khoury MJ, Stewart W, Beaty TH. The effect of genetic susceptibility on causal inference in epidemiologic studies. *Am J Epidemiol* 1987;126:561-7.
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Book reviews

The relevance of *N*-nitroso compounds to human cancer: exposure and mechanisms. Edited by H Bartsch, I O'Neill, and R Schulte-Herman. (£50.) Lyon: IARC, 1987 (Sci publ No 84).

In these proceedings of the 9th international meeting on *N*-nitroso compounds held in Baden, Austria, in September 1986 there are well over 100 separate

contributions, divided into nine major groups: molecular and biochemical mechanisms, metabolism, reaction with macromolecules, methods for detection, biological effects, endogenous formation, laboratory studies on formation, measurement of exposure, tobacco and betel-quid carcinogenesis, and clinical and epidemiological studies. For someone not directly involved experimentally, the papers may appear formidable in their diversity and detail and the difficult problem of providing a link or thread to enable the outsider to understand the underlying importance of the various contributions has been approached by means of a five page overview.

Nitrosamines are often formed by reactions of amines and inorganic nitrite. Much interest in this reaction has been because of nitrites in food and tobacco. *N*-nitrosodiethanolamine can be formed by this type of reaction and has been found in metal working fluids. *N*-nitrosopiperazine can apparently be formed in vivo from piperazine. From papers presented at the symposium, occupational exposure to these nitrosamines does occur and is detectable using urinary monitoring. Nitrosamines are also used as an important tool for understanding cancer mechanisms, thus there is plenty of interest to the industrial toxicologist.

The book will be read by those who participated in the symposium or have a specific interest. One of the annoying features of the text, however, was the absence of proper citation of the references. Consequently, tracing back interesting work is impossible without a detailed knowledge of relevant reports and much of the usefulness of the work to the more general reader is lost. Because of this and the inevitable "bittyness" of the articles I do not think that the more general reader will find this book useful.

PAUL ILLING

Occupational and industrial dermatology. Edited by Howard I Maibach. (Pp 475; £55.50.) Chicago, London: Year Book Medical Publishers, Inc, 1987.

The original edition of this book was published in 1982. It was based on the contributions to a conference. The present edition has been updated and expanded. There are 38 contributions and the individual contributions are usually short and inevitably there are repetitions. It provides, however, a comprehensive review of the occupational dermatoses. As the articles are still based on the lecture format, most contain lengthy tabulations, patch test batteries, the ingredients of acrylic cement, wood products chemical list, to mention only a few.

One of the longest chapters is on the problems associated with the production and processing of

Book reviews

plastics. Another interesting chapter is on dermatitis in the forest products industry. Inevitably, poison ivy dermatitis is described at length, not a relevant problem in the United Kingdom but of considerable general interest.

Dermatologists working in occupational dermatoses will probably find this book useful for reference and helpful when dealing with cases of contact dermatitis where the causative agent is particularly difficult to identify.

MURIEL NEWHOUSE

Textbook of occupational medicine. Edited by J K Howard and F H Tyer. (Pp 509; £60.) Edinburgh: Churchill Livingstone, 1987.

In most branches of medicine there is a spectrum of books ranging from authoritative text books on the one hand that are used only for reference to more didactic, easily portable volumes that are used from day to day. There are, however, plenty in the middle and it is into the middle that Howard and Tyer's book falls since it certainly is not a comprehensive text book.

There has been a spate of middle range books on occupational medicine of late and I have to say that I do not think that the present one adds anything important to the list and it is somewhat pricier than many.

The authors have had the admirable intent of covering as wide a range of topics as they could but they have stinted on space so that their contributors are not able to do justice to their subject, certainly not in the way which one would like to see in a text book. I can see that this book might be used for those studying for the AFOM or some similar examination unless they chose to use one of the cheaper alternatives which would do them almost as well. I do not see it being used at all as a reference volume.

There are several errors of commission in the book—one I disliked particularly was the confusion of Legge's first name—but the book suffers mostly from errors of omission. The chapter on chemical hazards is too skimpy to be really useful and so is the one on statistics. Another feature that may limit the appeal of the book is its parochial nature; some of the chapters at the beginning of the book deal with occupational health law and practice in the UK but have little to say about the situation elsewhere.

This book has been a long time in the making and we have heard about its appearance for many months. I am sorry to have to say that I was disappointed when it finally arrived and I cannot recommend it with any enthusiasm.

H A WALDRON

Prevention of neurotoxic illness in working populations. Edited by B L Johnson. Published for WHO by John Wiley & Sons, Chichester, 1987.

Small books written by 50 contributors seldom turn out to be as readable as this which is a considerable recommendation to the editor. Anyone who wishes to make a start in occupational neurotoxicology would do well to begin here since the book reviews most of present knowledge concisely and with a great many references. Different approaches to the study of neurotoxic illness in the workplace are given and the chapter on epidemiological methods is a model of its type.

The sections on test methods concentrate rather too heavily on symptom questionnaires and psychological tests, reflecting the tendency to base what is often a psychiatric diagnosis—as in the case of the so called solvent induced organic syndromes—on the results of the subject's subjective impression or his performance in psychometric tests rather than on a proper psychiatric evaluation. Throughout the book there is a notable lack of psychiatric input to balance that of the epidemiologists, neurologists, and psychologists; mention should have been given to case finding instruments such as the general health questionnaire or to the present state examination.

What is also lacking is any sense of how serious a matter neurotoxic illness really is among people at work. Judging from the papers that have appeared in this journal over the past five years or so, it is neither common nor grave. Or am I misjudging the issue entirely? There is no doubt that it has considerable survival value for many academically based epidemiologists but I wonder how far it impinges on either the workers themselves or those who have responsibility for their day to day care either at work or elsewhere?

Nevertheless, this is a useful addition and one which will no doubt set off several hounds in search of neurotoxic hares.

H A WALDRON

Work-related lung disorders. Edited by J E Cotes and J Steel. (£65.) Oxford: Blackwell Scientific Publications, 1987.

It is an interesting idea to have a book on occupational lung disease written jointly by a physician and a hygienist but in doing so the authors seem slightly to have obscured their target. Reading it, I was not clear who would benefit most. It is extremely clear and lucid, however, and one cannot say that for many text books these days, and it does give the proper emphasis, concentrating less on the classic diseases and more on those seen in the modern workplace.