

Medicine and Books

Too many cooks

Asbestos. Vol 1. "Properties, Applications, and Hazards." Ed L Michaels and S S Chissick. (Pp 553; £25.) John Wiley and Sons. 1979.

The British public is afraid of asbestos. While it faces with equanimity tens of thousands of deaths a year due to smoking, it shows enormous concern about 150 or so deaths attributable to asbestos. It is right that there should be concern, but pressure groups are causing alarm and newspaper headlines about "killer dust" are common. Difficulties arise because of a lax use of terms and all the radiographic abnormalities produced by exposure to asbestos are often wrongly described as asbestosis—a progressive life-shortening disease. Everyone writing about asbestos should take scrupulous care to avoid inaccuracies which may be seized on and quoted to perpetuate the many misconceptions that abound. This aspect has been very much in my mind in reviewing this book.

Diverse readers and writers

The editors have brought together information about asbestos to help personnel in the industry, health and safety inspectors, environmental officers, architects and designers, doctors concerned with asbestos, and the public. Such a diversity of readers poses a problem. Should individual sections provide sufficient detail to satisfy experts on the subject? In that case, many others will find only parts of the book readable. Or should the chapters be written so that they interest the non-specialist and still contain all that is important? This is much more difficult. I have a suspicion that the editors never made up their minds about this or, if they did, they failed to tell the contributors (who have used differing standards). In this kind of book I feel that references to further reading would be preferable to quoting the differences in refractive index between crocidolite from the Transvaal and from Bolivia, and to describing the detailed histology of mesothelioma.

There are 16 chapters, and the editors have made a stick for their own backs by following the fashion of having them all written by different people. There is a great deal of repetition which they justify so that "each chapter stands on its own." It goes much further than this, and most of the overlapping is quite unnecessary. For example, plant design and protective equipment feature in Chapters 1, 8, and 16. It looks as if all the contributions were simply stacked serially and printed with little if any editing. With firmer handling, the book could be 150 pages shorter and easier to use as a reference.

The first chapter by the editors is messy. A poor glossary is called a bibliography. The 1958 international classification of pneumoconiosis, dealing with rounded opacities, is reproduced instead of the 1971 version, which was specially designed to include the irregular shadows of asbestosis. A chapter on mineralogy is followed by one on the chemistry and physics of asbestos. Had they been written by one person, much repetition would have been avoided. A useful chapter on "Attitudes to asbestos" includes Government regulations, policies now adopted by manufacturers, and the opinions of pressure groups. Eleven pages are wasted in reproducing health record forms of no interest to anyone.

Some contributors are British and others American. Some

take a global view and others confine themselves to their own country. A chapter on non-occupational emissions and exposures deals exclusively with the USA, with six pages of tables of asbestos levels in towns, offices, and water supplies. The rest of the world gets a single mention.

Good, bad, and indifferent

Beckett on monitoring and identifying airborne asbestos is excellent. Middleton on the identification of asbestos in solid materials also seems very good, but a bit technical for me. "Dealing with asbestos problems" is a peculiar title for a good chapter on the protection of workers. Some of the material from Chapter 1 should be in here. The addresses of organisations issuing educational material would have helped because they have to be hunted for elsewhere. The list is British, and the American equivalents are at the end of Chapter 16.

An architect writing on asbestos and asbestos-free substitutes in buildings has wandered off into health hazards in general. He has been allowed to raise the possibility that a single asbestos fibre may produce a mesothelioma. If such a fancy is to be discussed it should not be done by an architect. A chapter on alternatives to asbestos in industry keeps to the point. It is informative, but perhaps a little over-technical in parts. The next chapter on "The literature relating to asbestos" repeats information found elsewhere and serves no useful purpose.

There are five chapters on asbestos-related diseases. There is no evidence of co-ordination and there is much repetition. The section does not give a clear clinical description of asbestosis or mesothelioma and there is no discussion of asbestos-related pleural effusion. Even so, Jones's chapter on pathology is very good. Both he and Newhouse deal lucidly with the link between the amount of asbestos exposure and the various disorders. Incidentally, this section illustrates the dangers of such over-confident statements as "No one has yet suggested that silicosis protects one from getting lung cancer." If coal workers' pneumoconiosis is substituted for silicosis, it has already happened.^{1 2}

The last chapter on prevention and management by six Americans is unbalanced. It advocates that people with an increased risk of cancer should not be recruited. Among the risk factors listed are lung cancer in first-degree relatives, lung fibrosis from scleroderma, congenital cystic disease of the lung, immunodeficiency in those with renal transplants, and even a low intake of vitamin A. Emphasis is rightly laid on smoking, but I doubt whether there is justification for giving preference in employment to those who pledge not to smoke and for measuring carbon monoxide in the breath of the devious.

Are there grossly misleading statements? I found the following. "Occupants of households of asbestos workers have elevated rates of asbestosis." "Asbestosis is diagnosed by a number of clinical features, but principally (by) . . . the presence of asbestos in the sputum and the appearance of pleural plaques." I doubt the unpublished claim that nearly 40% of family contacts have "x-ray changes (scarring) characteristic of asbestos exposure." Even more suspect and confusing is, "The survey is aimed to cover some 24 000 workers in the asbestos industry and so far x-ray examination of nearly 1000 workers has revealed early signs of asbestosis." These two statements come from one of

the editors and should not have been printed until the evidence on which they are based is available.

The text is generously sprinkled with misprints and the index doesn't work well. It saddens me to have to write such a critical review because the book contains much that is useful and informative. It could have been so much better. A second volume is promised, but there is no indication of its contents. I hope it smacks of better editing.

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¹ Jacobsen, M, PhD thesis, Edinburgh, 1976.

² *Thorax*, 1979, 34, 229.