

Book reviews

Transdermal and Topical Drug Delivery Systems

T. Ghosh, W. Pfister, S. Yum (Editors), Interpharm Press Inc. 1997. 420 pp., \$219, ISBN: 1-57491-041-8

I like this book a lot. It is a comprehensive source of information about practically all aspects of transdermal and topical drug delivery. At last we have a single volume that contains chapters covering the whole spectrum from prediction of transdermal permeation through to the design, development and the manufacture of transdermal systems. The book contains 18 chapters which provide a succinct state-of-the art review of the science and technologies currently available in this area. In some cases, the scientific standard leaves a little to be desired; but this is only a minor criticism of this very good book aimed at the industrial practitioner. Once again, Interpharm Press is to be congratulated for doing a great job.

To give you an impression of the wide scope of this book, let me briefly run through the chapters. Chapters 1 and 2 include inter alia detailed lists of dermal and transdermal products on the market. The excellent background information of these two chapters is extremely valuable. The use of mathematical modelling of skin permeation is summarised in chapter 3. The numerous factors that influence preformulation requirements and in vitro models for accessing delivery systems are discussed in chapters 4 and 5. Clinical safety testing and the clinical assessment of safety and efficacy are discussed in chapters 6 and 7. There follows description of the design, development and manufacture of transdermal systems (chapter 8) and an example of transdermal delivery for therapeutics in chapter 9. The challenges involved in reducing the skin barrier properties using iontophoreses etc. are highlighted in chapter 10. Chemical means of transdermal drug permeation enhancement are overviewed in chapter 11. A new class of permeation enhancer is discussed in chapter 12.

At this point the emphasis of the book changes to the development of topical products intended to act locally. Thus, chapters 13 and 14 describe the influence of topical formulation and vehicle selection on efficacy. Chapter 15 is again by way of an example, in this case outlining the development of a new topical formulation. Recent advances in novel topical formulations are reviewed briefly in chapter 16. Chapter 17 discusses the important field of protective and cosmetic products. The book concludes with

regulatory considerations and current requirements of topical systems, although the title of this chapter is rather misleading.

This book fills a gap in the pharmaceutical literature by dealing with the practical and applied aspects of transdermal and topical drug delivery systems. I recommended it highly to all researchers and developers working in this field. It does not matter if you are in industry or the universities, you should have this book in your book case.

Geoffrey Lee

Lehrstuhl für Pharmazeutische Technologie
Cauerstrasse 4
91058 Erlangen
Germany

PII: S0939-6411(98)00032-0

Metered Dose Inhaler Technology

T. Purewal, D. Grant (Editors), Interpharm Press, Buffalo Grove, IL, USA, 1998, 268 pp. \$194.00, ISBN 1-57491-065-5

Interpharm Press has been putting out some interesting books recently. They represent an attractive mixture of research orientated works and books intended to help in pharmaceutical practice. This new volume belongs to the latter, and gives a very readable summary of the pharmaceutical technology of metered dose inhalers. The accent of this book is clearly the day-to-day problems of developing and manufacturing metered dose inhalers. The book starts with a lengthy chapter on the formulation of MDIs. The actives and adjuvants are individually discussed, as are containers, metering valves, and activators. Propellants are discussed at suitable length, and those somewhat sceptical about dried powder inhalers will find a useful comparison of the two aerosol forms. The next chapter gives a concise overview of the manufacture of metered dose inhalers. The preparation of the active is first described in detail, followed by descriptions of the various fill processes. Particle size analysis plays a vital role in the manufacture of aerosols, and a chapter is included in this book. It gives a brief, succinct analysis of the relevant techniques for determining particle size in feed stocks, aerosols and

propellant suspensions. Although brief, this chapter is quite adequate for the nature of the book. In the following chapter we find descriptions of the testing methods used for metered dose inhalers, of which there are a great number. They are all briefly discussed here, from a practical point of view. The last two chapters of the book cover aspects not usually found in the standard texts on aerosols. The pharmacokinetics, metabolism and toxicology of propellants are broadly described, with useful information about determining propellant concentrations in vital fluids and the development of a toxicology program for propellants.

This useful book is a mine of information about practical

problems associated with metered dose inhalers. Don't expect research standard, but nonetheless a recommendable book as an introductory text to the field.

Geoffrey Lee
Lehrstuhl für Pharmazeutische Technologie
Cauerstrasse 4
91058 Erlangen
Germany

PII: S039-6411(98)0034-4
