

substantial data documenting the benefits of combining inhaled corticosteroid therapy with long-acting β_2 agonists, both salmeterol and formoterol. The author states that long-acting β_2 agonists should be “used under very special guidelines” and “not be used for acute symptoms.” This statement is in clear contrast to the documented positive effects of budesonide and formoterol, both for maintenance and as reliever therapy.

The chapter on theophylline is well written and updated, and is a good review of the subject. Maybe it could have a little more critical view on the use of this drug in modern asthma management. The 4 times shorter (!) anti-leukotriene chapter is also well written and reasonably well up to date, but the systemic aspects (ie, the effect on both asthma and rhinitis) could have been addressed.

Chromones are dealt with in a separate chapter. So is the use of anticholinergics. Both treatments are well described, although both have a very limited place in modern asthma management.

The chapter on glucocorticosteroids provides a comprehensive overview of both systemic and inhalational therapy. The Childhood Asthma Management Program (CAMP) study is mentioned as evidence for long-term safety. In this context it could be worth mentioning that long-term budesonide treatment did not prevent lung-function decline and that there are components in the inflammation in asthma that do not respond to corticosteroids. Moreover, the doses recommended to treat exacerbations are rather high, and perhaps somewhat out of date.

The chapter on anti-IgE treatment is up to date, not least in respect to the relevant pathophysiology and the mode of action. Interesting future uses, such as treatment of allergic disorders other than asthma, are mentioned. Anti-IgE is expensive and the treatment indications are therefore perhaps more restrictive than they would have been, had the price been less.

Specific allergy treatments are environmental control and allergen immunotherapy. Two chapters are devoted to these issues.

As for mites, single intervention with bed covers hasn't shown an effect on asthma, but keeping indoor humidity below 50% has, especially in tropical areas with very high humidity. The summary recommends that dust mite avoidance measures should be discussed with mite-sensitive patients, which we think is reasonable, and is in line with our attitude to other indoor allergens. Pets

should be removed when allergy is present, even if zero allergen level isn't achieved, especially not with cat allergens, which are shown to be ubiquitous. The concentration is crucial, and is definitely highest in homes with pets.

The allergen immunotherapy chapter is updated with the latest knowledge of induced immunological changes. It doesn't bring up any controversies, except the fact that unstandardized allergen vaccines are still in partial use. Perhaps too little is said about sublingual immunotherapy that is now available, at least in Europe, for some allergens (eg, timothy), after successful controlled studies.

Practical aspects on immunotherapy are mentioned, as is the fact that successful allergen immunotherapy ameliorates but usually does not completely eliminate the respiratory symptoms in allergic rhinitis and asthma.

That controversies in allergy has its own chapter is not controversial: it is important that physicians are made acquainted with unproven methods, in order to avoid them and be able to use arguments based on facts when talking with patients, who can be misinformed about, and hence be appealed by, unsubstantiated techniques. You can only agree with the declaration that it is important to use methods of diagnosis and treatment that are based on sound scientific principles and have been validated by proper clinical trials.

The very last chapter, about the patient with too many infections, is a new one and defends its place. It is imperative to be able to distinguish benign reasons for recurrent infections from an immunological deficiency syndrome in need of treatment.

Finally, although this review has given some criticism, we find the book very suitable for its purpose and congratulate its editors. Their hope, proclaimed in the preface, that “the book should give practical knowledge, delivered clearly and effectively to the physician who cares for the allergic patient,” has been fulfilled.

Leif H Bjermer MD

Sonja Werner MD

Respiratory Medicine and Allergology

Lund University Hospital

Lund, Sweden

The authors have disclosed no conflicts of interest.

From Both Ends of the Stethoscope.

Thomas L Petty MD. Denver: Dr Tom Publishing. 2008. Soft cover, illustrated, 139 pages, \$14.95.

The early 1960s was a time of great changes in the field of pulmonary medicine; other specialties, especially cardiology, had been able to bring new technologies directly to the patient, making possible more accurate diagnoses and amazing therapeutic results. Thomas Petty was there at the beginning and was truly one of the foremost leaders to bring about the change at the University of Colorado, where important discoveries took place. It was my good fortune to be at the University of Colorado as a pulmonary fellow the year prior to Petty beginning his fellowship. At that time, active research in pulmonary disease was going on, patients were being studied, but the technology was not yet developed that could be used at the bedside, so treatments for chronic obstructive pulmonary disease (COPD) and respiratory failure were pathetically meager. The physiology of blood gases was often being studied at altitudes higher than Denver—up on Mt Evans—on cows or horses. As Petty describes his medical student days while learning physical diagnosis, he was not shown how to use a simple spirometer—though the instrument was available at the time. What was available then and still used by most doctors throughout their professional careers was the stethoscope, and its importance is a running theme of this small but important book.

Tackling COPD is the first challenge Petty describes, and how his efforts led to some eye-opening discoveries. The observation that many patients with advanced emphysema have striking elevations of their red blood cells led the author, while caring for one of his earliest patients, to suspect and work him up for polycythemia; it took a hematologist to point out to this tyro pulmonologist that chronic hypoxia can induce polycythemia. Basic medical knowledge? I have over the years occasionally seen doctors make this mistake. One of the old ideas that Petty did put to rest concerned the danger of giving patients with emphysema continuous oxygen, long believed to result in a dangerous accumulation of carbon dioxide in the blood. Disproving this required the measurement of blood gases, something that had been possible for many years but required long labor-intensive work. Development of the modern blood gas analysis ma-

chines made it possible to monitor COPD patients while receiving low-flow oxygen and to *prove* it to be safe. This one small step made possible the development of long-term oxygen therapy.

The next step taken after finding how safely continuous low-flow oxygen might be employed was to devise a mechanism to deliver it. By employing a liquid-oxygen unit called the Linde Oxygen Walker it was possible to study the effects of supplemental oxygen on exercise and other rehabilitation techniques. It was rewarding to see how it improved hypoxia, reducing excess red-blood-cell production and levels of pulmonary hypertension. Continuous oxygen given up to 18 hours a day has been shown to increase both the length and quality of life for COPD patients. Today such portable units are ubiquitous and patients are living more active lives, not possible before Petty took on and solved some of the initial problems.

In the second chapter of his book Petty describes what is probably the most important discovery to come from the Pulmonary Division of the University of Colorado: the acute respiratory distress syndrome (ARDS). The history of this discovery is important and well presented by detailing how unique features of the syndrome were recognized and differentiated from heart failure with pulmonary edema, which in many respects it resembles. For years it was believed that the extreme symptoms of dyspnea and pulmonary congestion that followed certain infections, trauma, and shock from various causes were due to heart failure, even though the patient might have neither a history of heart disease nor evidence of primary heart damage. Two new developments led to solution of this problem: first there was the easy availability of blood gas analysis, and second the improvement in ventilators, permitting oxygen to be delivered with pressure. It was noted in these patients that the lungs became stiffer, and as they did so hypoxia developed. When the oxygen pressure was increased, especially the pressure at the end of expiration, the lungs opened up and hypoxia was relieved. The final observation, which capped the study, was that the frothy material coming from the lungs in these patients was different from that found in heart failure: it lacked surfactant (the substance that maintains the shape of normal alveoli); instead it was a unique proteinaceous substance. These were shock lungs, and they were the target of a

process initiated by any of a variety of bodily insults. The acute respiratory distress syndrome was born.

The section describing the development of oxygen therapy, long-term oxygen therapy, and ARDS is one of the best in the book. Clearly presented, this important material can be of value to a lay person as well as the professional; doctors, especially those who may not work in the pulmonary or related fields, will find brief, accurate descriptions of these subjects, and not presented in a “dumb down” manner.

Part 2 of the book is a collection of vignettes describing cases and events with which the author was involved. The cases were patients with a variety of pulmonary problems, and seemed to exemplify Petty’s extraordinary skills as a diagnostician, compassionate counselor, and friend to rich and poor alike. His well deserved reputation led him to be invited all over the world and meet famous people to whom he was always ready to provide even a small bit of medical advice. Despite this almost peripatetic life style, he reports he also made house calls. His travels also seemed to involve him in historical events of the time. An invitation from Union Carbide brought him to Bhopal at the height of the disaster there, and some adventures were described by him as being “like a James Bond movie.” What is not clear was why he was invited to Bhopal in the first place. Finally he records contact with an elderly, very poor lady in Alabama—Selma, of course. Initially she described her medical problems (via telephone) ... he suspects sarcoidosis ... she responds that has been ruled out ... she describes her association with Dr King and the march in Selma... Petty sends her money for telephone bills. A single trip to Alabama provided the only opportunity to visit this poor lady. They continued to communicate, via mail, until her death. We never learn any more about her medical problem. I found this section of the book the least satisfying.

Beginning in 1992, with his first open heart surgery, Petty has experienced a series of health issues that often brought him to death’s door, challenged the skills of his caregivers, and revealed his own faith and courage. These experiences enabled him to describe these ordeals from the unique perspective of a physician very familiar with the health-care system, hospitals, nurses, and physicians, and how they meet expectations as well as how they fail to do so. Petty’s experience at a major medical center is an

example of a conflation of miscommunications, oversights, misunderstanding, and neglect. We’ve all heard examples of human failings in all types of institutions, regardless of their reputations. Even in his own home, Denver, a close colleague failed to respond to his cry for help. This story also makes the point that seeking greater knowledge or skill at some distant center because of its reputation may not meet expectations. Often the consultation one seeks may just as likely be found in one’s own medical community. Kudos go to Petty for not succumbing to the temptation to bring a malpractice action; he certainly had grounds to do so. I’d like to think his decision was informed by his own experience working in a large medical center, and perhaps the wisdom and humility arising from his personal health travails. It certainly made him aware of the problems in the health-care system and the need to continually reinforce the oft-forgotten essentials of patient care.

In the final section of the book Petty takes up specifics of the health-care system, which he describes as really not being a system at all, but a “patch-work of services” with a variety of means of payment or the absence of any. I can’t disagree with that, but cannot subscribe to his view that the people can or will *directly* determine how it will be in the future. Of course he brings up comparisons with the Canadian system and how it fosters long waiting lines as well as difficulties getting specialty services when wanted. I have heard all this before and have generally been sympathetic to it; however, it is my observation that there are many areas with similar conditions here in the United States. Though I have heard Canadians complain about their health care, I have also talked to some who are quite satisfied with the program in Canada.

Are the expectations of American patients too high? There are many who, along with Petty, think they are, and efforts to lower them will not be easy. Petty points to surveys that grade degrees of dissatisfaction for various complaints, and, as noted in his book, he shares some of them. Many of the complaints result from conditions over which physicians have had little control, others concerning personnel behavior and attitude must be dealt with by continual education and self-examination. Toward lawyers he expresses opinions held by many physicians, who point to the damaging effect of the “defensive medicine” that so many doctors are being forced to practice. I take

issue with him over an aspect of end-of-life problems exemplified by the famous case of Terry Schiavo, that he believes could have been avoided by having a living will. I strongly endorse people having such end-of-life documents, but I also believe that in heated controversy over high-profile cases, legal sophistry can and often does override common sense. I also differ with Petty on his view of health-maintenance organizations (HMOs). Many of these groups have failed for reasons that seem justified, but based upon my own experience working for a successful HMO for almost 30 years, I can say the care given to its members has been the equal of that in the community. In addition many of the complaints made by people in other care programs have long ago been solved by my HMO. Petty's complaint against the pharmaceutical industry is valid but tiresome. Making a profit is the oxygen that keeps these industries alive, and I too am disgusted with the direct advertising to patients, the exorbitant costs of new drugs, the shady attempts to manipulate clinical results of drug testing, and failure to invest particularly in research for orphan drugs, but I remain skeptical of the suggested alternatives to our present system.

The author has some advice for patients to help get the most out of our system of health care. I was struck by the naïveté in his recommendation that patients "insist that doctors take enough time to get to know us." Most doctors in full-time practice have limits on the amount of control they have on their time, and we all have seen patients who, given the opportunity, go on and on, oblivious to the fact that the meter is running and others are waiting. He also admonishes patients to "begin to redirect medicine," which I also take issue with, because patients can't do it. There was a time when doctors could do it, but no longer. More and more doctors have become employees, referred to as providers, and as such they carry no more influence than others who are viewed as "caregivers."

The last item Petty discusses I strongly applaud: the return of spirituality to the practice of medicine. I do not mean the direct injection of a doctor's religious beliefs; rather, to be aware of and to encourage the expression of any, possibly latent, spiritual beliefs the physician may discern. I am sure Petty's opinion on this matter reflects his experience as a patient as well as a physician, and I hope his view that spirituality is returning to medical prac-

tice is true; so many parts of this country are Laodicean, such changes will be difficult.

This is a very useful book that should appeal to most professionals working in pulmonary medicine; for doctors it should be of greater interest to those not specializing in pulmonary disorders, and those who want a brief but clear discussion of oxygen therapy, ARDS, or COPD will find it here. Medical students will find value from those sections dealing with the broader areas of medical practice as presented by an experienced physician. The book is well written with clear illustrations, though some of the photographs are somewhat blurred. There is no index, but a glossary is offered, which may be of most value to the layman, rather than to anyone already working in health care.

William F Spence MD

Pulmonology (Retired)

Group Health Cooperative of Puget Sound
Seattle, Washington

The author has disclosed no conflicts of interest.

Clinical Asthma. Mario Castro MD MPH and Monica Kraft MD. (*Expert Consult* series.) Philadelphia: Mosby Elsevier. 2008. Hard cover, illustrated, 532 pages, \$134.

The book is composed of 7 sections: asthma in the 21st century; diagnosis of asthma; assessment; management; treatment; special situations in the management of asthma; and education.

As an *Expert Consult* title, the book is useful to researchers and physicians, especially the sections on diagnosis, assessment, management, treatment, and special situations in the management of asthma. But respiratory therapists and nurses will find this book interesting in the sections on acute asthma management in hospitalized and intensive-care patients. The sections on environmental modification, allergen avoidance, teaching patients to manage their asthma, and asthma education are really what respiratory therapists, nurses, and asthma educators need.

Based on the 2 most important and updated guidelines, the Global Initiative for Asthma (GINA 2006) and the 2007 National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 3, combined with the contributions of world experts in

asthma, the authors have achieved their aims in providing a practical and useful resource for health-care practitioners in asthma management.

The material is well selected and organized. Clinical pearls of wisdom precede each chapter and help the reader to grasp key concepts. The arguments are clear and logical. Based on the 2 prestigious guidelines and references from renowned journals, the statements of fact are generally accurate. The style is clear, concise, and readable.

The chapter on the natural history of asthma into adulthood is very interesting. It raises the very important issue of protecting asthmatic children from fixed airway obstruction, which is very common.

Box 5.5 details the differential diagnosis possibilities of asthma, which is very important, but the term "recurrent cough not due to asthma" is not specific enough to be considered a cause.

The whole chapter "How Do You Diagnose Asthma in the Child?" is very important, as diagnosis is much more difficult in this patient group. The differential diagnosis in the chapter on diagnosing asthma in adults is helpful.

The chapter dealing with pulmonary function tests, which describes the elastic properties of the lungs and chest walls, pressure-volume curves, and the static pressure-volume relationship of the lungs, is not very practical for daily management of asthma. A more detailed text and illustrations of full flow-volume curves from spirometry would be much more useful.

In the chapter on clinical assessment of asthma, the part of self monitoring is very informative. The section "How Do You Classify Asthma by Severity?" compares the classification methods of NAEPP and GINA.

The section on instruments for assessing asthma control is rich and introduces the important concept of the 2 asthma-control domains: current impairment and future risk.

In the section on management of persistent asthma in children, cromolyn and nedocromil are introduced as medications for prevention and treatment of mild persistent asthma, but the authors don't comment on the weak evidence about and debatable efficacy of these drugs.

The pros-and-cons tables in the section on management of persistent asthma in adults are real pearls. They provide convincing, original, and important arguments

