
Point-of-care testing (POCT) is a subject that, these days, is regularly on the lips of every clinical chemist. Although POCT is today’s reality in many hospitals and physicians’ offices, it is, however, far from being an established practice. Both clinical chemistry and the medical profession are still finding their way toward effective and, in terms of quality, responsible application. On the one hand, professional organizations such as NCCLS and IFCC have issued guidelines for applications of POCT; on the other hand, the industry is paving the way to widespread introduction by marketing new and ever more sophisticated devices. An integrated view on the subject has been lacking.

AACC Press has, just in time, taken the initiative to publish a comprehensive book on almost every possible subject in POCT to guide the laboratory professional through all new possibilities with their accompanying chances, implications, difficulties, and controversies. This multinational, multi-author book is divided into a general introduction, a section on technology, a section on management, and a large section on a variety of applications under the heading “Case Studies”.

The book’s introduction leads the reader to the main issues involved in POCT: shortening the diagnostic cycle, cost-effectiveness, and quality assurance. The technology section briefly describes the various analytical methods implemented in point-of-care devices; gives an overview of hand-held sensor systems currently on the market; pays attention to benchtop technology that is applicable either in the central laboratory, the decentralized clinical setting, or the physician’s office; and ends with the concept of the distributed laboratory. In this concept, frequently ordered tests are performed close to the patient, whereas tests with less demanding turnaround times are performed in a central facility.

The section on management starts with three chapters on the quality aspects of POCT, followed by an original and important contribution on informatics. The next chapter, on guidelines, overlaps somewhat with the earlier three chapters on quality of POCT but still contains sufficient new substance. The following two chapters concentrate on the economics of POCT, give assistance for determining cost effects of introducing POCT, and emphasize the dependence on local organization and the cost factors involved. A contribution on regulatory issues is especially informative to US readers but might still be interesting for non-US laboratories.

The last and largest section, Case Studies, starts with a treatise on evidence-based laboratory medicine. This might be part of any book on clinical chemistry, but it is particularly appropriate in this one because POCT, being a new technology, should be thoroughly validated for each of the suggested applications in methodologically correct studies. One such study, referred to in this chapter, raises questions concerning the cost-effectiveness of POCT in an emergency unit. The next chapters weigh the pros and cons of POCT in primary care, diabetes care, emergency care, intensive care, perinatal care, pediatric care, chest pain unit, hematology, microbiology, drug testing, home testing, workplace testing, and wellness testing, leading to appreciation, doubt, or rejection by the respective authors. The weighing process, rather than the outcomes, helps the reader to make up his or her own mind.

As a whole, the book contains a wealth of information on POCT and all that is involved. The multi-author design makes each chapter stand alone, and each can be read without the necessity to read the book from the beginning. When you do, however, many issues appear in several chapters. The rapid technological developments in this field will oblige the authors to a regular update.


This is an easily readable text, which presents its information in a fashion that is readily accessible to both clinicians and students. The contents are set out in four parts: Basic Concepts, Consumption, Deficiency, and Toxicity; Trace Element and Mineral Nutrition in Healthy People; Trace Element and Mineral Nutrition in Disease, and an index and guide to relevant literature. This format particularly suits the nutrition practitioner in patient care. However, an extensive index also enables the researcher or student to find basic information relating to individual trace elements or minerals. Each chapter provides a review of relevant recent research and an extensive reference list, which could further assist the researcher or student. For each of the nine trace elements currently considered essential (chromium, copper, fluoride, iron, iodine, molybdenum, manganese, selenium, and zinc) and three major essential minerals (calcium, magnesium, and phosphorus), information regarding the recommended dietary intake, possible toxicity, estimated dietary intake, laboratory measurement, and role in health and disease is provided.

In Part One, the reader is made aware of the difficulties facing the scientist in the area of trace element research. Laboratory measurement of trace element status suffers not only from analytical difficulties, which result from method interferences, sample contamination, and low biological concentrations, but also from a poor understanding of the storage and metabolism of many of the elements. The dangers in recommending dietary supplementa-