
Clinical Diagnosis and Management by Laboratory Methods, nineteenth edition, is the latest in the lineage of textbooks on laboratory medicine that began when Dr. James C. Todd published A Manual of Clinical Diagnosis shortly after the turn of the century. Since then, an explosion in scientific knowledge and technology has transformed laboratory medicine into a complex, multidisciplinary medical specialty. In the course of its metamorphoses from “Todd and Sanford” to “Davidsohn and Henry” to “Henry,” successive editions have managed to assimilate and incorporate incrementally the innovations of the times, and thus the text has established itself as a standard in the field. Not surprisingly, the Nineteenth Edition is a large, scientifically diverse, multi-authored opus that embodies a considerable block of biomedical knowledge.

To accommodate the additional information accrued since the 1991 edition, the Nineteenth Edition has added both authors and text. It is not merely larger, having 82 more pages with more text packed into each page. Its organization and format present no surprises to those familiar with previous editions. There are seven major subdivisions. These include a general overview and management section, sections covering chemistry, hematology and immunohaematology, immunology, microbiology, body fluids, and a new, excellent, nine-chapter, 83-page section devoted to molecular biology. Other notable changes include expanded coverage of reproductive biology and fertility testing, cancer detection, medical informatics, and immunology, particularly in the areas of autoimmunity and cytokine physiology. Of these, the medical informatics chapter is especially useful for everyday practice. The chapter on medical decision-making has been shortened and revised, and it places more emphasis on practical examples. The segments on spirometry and sputum analysis have been eliminated, and there are modest reductions in the segments devoted to liver function testing, enzymology, coagulation testing, quality management, and quality control. As in previous editions, each chapter begins with an outline that lists its major topics, their page numbers, and their related subtopics to provide the reader with an orientation to the chapter's contents.

The most outstanding positive attributes of Clinical Diagnosis and Management are its comprehensiveness, its remarkably clear readability, and its superb tables and charts. The text provides information on virtually every aspect of laboratory medicine, so that the reader can rapidly obtain reasonably in-depth knowledge of the issues commonly sought by laboratorians. More esoteric topics of interest, although not always covered in great depth, are noted frequently and placed in the context of their overall significance. With few exceptions, the style is crisp and consistently uniform; the subject matter is conveyed in clear, concise, and easy to understand text throughout the book. The tables and charts are extraordinarily informative and stand out as the book’s most valuable strengths. These features make Clinical Diagnosis and Management an especially helpful book for students, pathology residents and other first time learners who are in need of an excellent reference or wish to develop a broad, working knowledge of laboratory medicine.

As one might expect, a book of such ambitious scope cannot escape having some shortcomings. The most serious of these fall into one of two general categories—the depth of coverage and the integration of the text’s diverse elements. Although it is clearly impossible for a single text to offer a thorough review of all aspects of a field that encompasses so wide a spectrum, the text does not consistently allocate space to its subject matter in accordance with its relative importance or timeliness. For example, several pages are devoted to a rather detailed description of principles of operation of a digital camera and digital imaging. In contrast, the discussions of disseminated intravascular coagulation, lupus anticoagulant, and international normalized ratios (INRs), all topics of current controversy and interest in clinical pathology, are limited to a half page or less for each, and the latter topic is not even listed in the index. Several other major topics could have benefited from more in-depth coverage, such as the planning and design of a clinical laboratory, quality control, quality assurance, and the use of transfusions in cardiopulmonary bypass. Although the preface states an intent to serve as a “...resource in virtually all aspects of clinical pathology and laboratory medicine...,” Clinical Diagnosis and Management pays minimal or, at best, spotty attention to actual, hands-on test performance and to related issues like test procedures, comparisons of technical methods, sources of analytic error, and trouble-shooting procedures. Also, color photomicrographs in the chapters on hematology and body fluids are too small and sometimes poor in quality, as opposed to those in the microbiology section, which are far better.

Although clarity and readability are among its strong points, the book seems to struggle a bit with the process of weaving its constituent parts into a cohesive whole. Some chapters attempt to conform to a pattern that first presents the nature of the analytes, then discusses clinicopathologic correlations, and finally describes the relevant analytic techniques. However, several other chapters do not adhere to this or any other recurrent format. Some chapters deal with laboratory tests on the basis of their pathophysiology; others on the basis of methodology. A consistent organization would make it easier for the reader to quickly search out topics of interest. There are also instances where closely related subjects would have been more effectively presented had they been located together rather than in separate sections of the book. For example, tests of renal function may be found in the chapter on renal function but also in the chapters on metabolic intermediates and urinalysis. In addition, there are segments that explain the polymerase chain reaction in both the Chemistry section and the Molecular Biology section. Passages dealing with cancer detection, flow cytometry, and blood groups are similarly disconnected.

Clinical Diagnosis and Management, the Nineteenth Edition falls a bit shy of its self-proclaimed standing as being “synonymous with clinical pathology and laboratory medicine;" nonetheless it succeeds in perpetuating the fine tradition established by its solid line of predecessors. Its clarity, its comprehensiveness, its wealth of information, and its distinguished staff of authors clearly preserve its status as a standard text in the field of laboratory medicine. It is particularly recommended to clinical pathology residents and other students of clinical laboratory science and would be a worthy addition to the libraries of all clinical laboratory professionals who wish a broad, thorough overview of the field. Despite the book’s attention to the details on how to perform analytic procedures, it is a valuable resource to have handy at the bench for those laboratorians who wish to gain a better insight into issues that might arise during the course of daily activities.

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