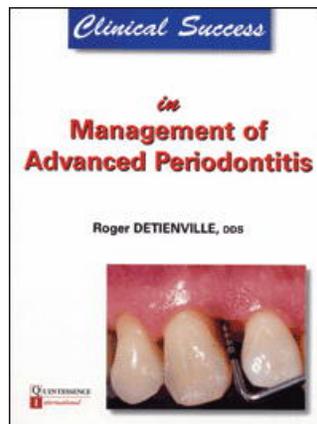


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Review of: Clinical Success in Management of Advanced Periodontitis

Lisa Shaw, RDH, MS

Reviewed by Lisa Shaw, RDH, MS, residential health care coordinator at St. Luke's Memorial Hospital Dental Service in Utica, New York.



Clinical Success in Management of Advanced Periodontitis

Detienville R

Quintessence International, 2005

Paris, France

120 pages, illustrated, indexed, soft cover

ISBN 2-9125-5041-6

\$78.00

The treatment of periodontal disease is a major focus in the practice of dental hygiene. Approximately 80% of all American adults show evidence of some degree of periodontitis. Chronic periodontitis affects approximately 30% of the population; 10% of the population experience severe chronic periodontitis. Periodontal disease is responsible for 40% of all tooth extractions and is the major cause of tooth loss for individuals over 45 years of age. As such, it is imperative that dental hygiene students and practicing dental hygienists be aware of current classifications for periodontal disease, current evidenced-based treatment methodologies, individual risk factors for periodontal disease, and behavioral models that effect change.

Clinical Success in Management of Advanced Periodontitis by Roger Detienville, DDS, is an English translation of his 2002 French text. In it, he outlines the severity, prevalence, pathogenesis, diagnosis, infection control, and treatment strategies of periodontal disease. In his opening chapter, Detienville clearly lays out his intent: "Currently, there is a strong incentive toward the application of evidence-based solutions and techniques. However, statistical analysis is more difficult to carry out in the clinical setting than in the context of pure research. Clinical practice can therefore demonstrate its efficacy and ultimately point out elements of scientific truth through interpretation of scientific information." Detienville goes on to define "clinical proof" indicators that support the success or failure in the treatment of periodontal disease. Positive indicators include "durable elimination of clinical signs of inflammation and long-term maintenance of periodontal support structures...[as well as] attachment gain and reduced probing depths." Negative indicators include "continuous, progressive loss of periodontal support."

I chose to evaluate this text not on a chapter-by-chapter basis, but rather by how it succeeded or failed relative to the following criteria:

- Is the information technically and factually correct?
- Do references support the text?
- Does the book cover each topic adequately and clearly?
- Is the level of writing appropriate for dental hygienists?
- Does the book succeed in its goals?

Is the information technically and factually correct? Do references support the text?

Throughout the text Detienville makes statements that are not supported by citations. In particular, I found concern with his discussion regarding the prevalence of periodontal disease, infection control in periodontics, and in his discussion of aggressive periodontitis. Regarding prevalence, the chapter only makes reference to 4 studies but then generalizes the findings of these very different and geographically diverse studies to conclude that "8% to 15% are likely to develop an aggressive form of periodontal disease..." In addition, he states "low socioeconomic indices...seem to increase the risk for developing an aggressive form of periodontitis" but provides no citations or references to studies that had these findings.

Regarding infection control in periodontics, Detienville makes absolute statements about the survival rate of *Actinobacillus actinomycetemcomitans*, the use of local anesthesia only in the second phase of scaling and root planing, and the effects on biofilm to brief exposure to chlorhexidine, all without citation. In his discussion of aggressive periodontics he, again, makes absolute statements regarding etiology without citation and states "aggressive treatment [of aggressive periodontitis] under local anesthesia should be avoided because it may hinder cellular and tissue reorganization during tissue response and repair." I was unable to find support for this statement in the literature. A statement such as this should be supported with references.

Does The Book Cover Each Topic Adequately And Clearly?

Overall, I found this text to be confusing and poorly formatted. In his chapter on clinical signs and symptoms he states "a treatment is considered successful when it changes the intensity of all features of disease. Some signs are totally reversible, others are not," yet the very next line states "treatment is considered successful when all reversible signs of disease have disappeared." I would suppose that the intensity of an indicator could change without it having disappeared.

In his photo presentation of an individual with chronic periodontitis having a positive culture for *Fusobacterium nucleatum* his treatment regimen does not include the Metronidazole regimen that he suggests, "effectively suppresses these bacterial species" in his discussion of biofilms and bacterial complexes. Further, in his initial discussion of the use of the Amoxicillin/Metronidazole regimens, he discusses 2 different protocols within the same paragraph and then discusses a third protocol in a conclusion statement.

In addition, while he references the new classification system for periodontal disease, throughout the text he continues to use old terminology (eg, table of microbiology of healthy and pathologic periodontal tissue includes refractory periodontitis).

His section on infection control in periodontics focuses mainly on the use of scaling and root planing, surgical intervention, antibiotic therapy (Amoxicillin/Metronidazole), and chlorhexidine. His chapter on adjunctive therapy focuses mainly on guided tissue regeneration, bone grafting, and splinting. There is no discussion about the local delivery of antimicrobials, the use of other systemic antibiotics, or the use of other agents such as NSAIDS, as adjunctive therapies.

Is the level of writing appropriate for dental hygienists?

I believe that overall, this text lacks detail in many areas, in particular the discussion of the pathogenesis of periodontal disease. I am confident that today's dental hygiene student (and yesterday's) will want a more comprehensive discussion of host response than what is contained in this book. In addition, he dedicates only 2 paragraphs to the discussion of periodontitis and systemic disease, and notes only the association of bacterial load and bacteremias as etiologic risk factors.

His statement, "in terms of efficacy, there is no difference between manual instrumentation and ultrasound devices," deserved more discussion, as well. While he referenced Sherman et al (1990) in his statement, "best results are obtained when both methods are combined," I believe the student or practicing dental hygienist would be better served by a more comprehensive discussion that referenced current literature regarding this matter (eg, American Academy of Periodontology position paper on Sonic and Ultrasonic Scalers in Periodontics, 2000).

His discussion of high-risk individuals covers only 2 and a half pages and dedicates only 1 paragraph to diabetes and 2 sentences to stress. He offers very little in his discussion of periodontal maintenance and includes tooth polishing as a procedure in periodontal maintenance. His discussion on daily maintenance therapy is very simple, and suggests that patients acquire new daily oral hygiene habits (eg, brushing 3 times daily, the use of interdental brushes) but provides no detail or direction regarding patient education methodologies or behavior change models. Finally the glossary in this text is very inadequate and provides only 1 page with 17 entries.

Does the book succeed in its goals?

Overall, I believe the goal of any dental hygiene text can be two-fold:

1. Furthering an understanding of the biology and current treatment methodologies regarding periodontal disease.
2. Furthering knowledge of methodologies and strategies that will foster behavior change in patients.

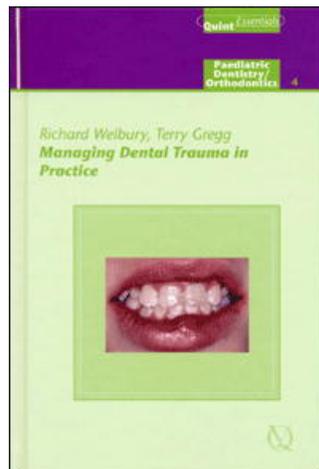
I don't believe that this text will benefit either the dental hygiene student or the practicing dental hygienist in accomplishing the aforementioned goals.

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Review of: Managing Dental Trauma in Practice 24th in the series Quintessentials of Dental Practice

Cindy Merback, RDH, MS

Reviewed by Cindy Merback, RDH, BS, clinical instructor.



Managing Dental Trauma in Practice, 24th in the series Quintessentials of Dental Practice

Welbury RR and Gregg TA

Quintessence, 2006

Britain

128 pages, illustrated, hardcover

ISBN: 1-85097-082-3

\$54.00

This volume is the 24th in the Quintessentials for General Dental Practitioners Series and is dedicated to dental trauma across the life span, but most specifically targets the pediatric patient and as it states, the older patient. This well-organized book begins with a one-page table of contents describing the chapter contents and ends with an index as well as future editions in the series.

Managing Dental Trauma in Practice is published in London and references numerous British and Scandinavian professional journals and therefore its information is based on those populations, including sports and cultural activities of those regions. It does, however, make a general reference to global trauma seen in boys and girls. Dental trauma, including injuries to

the primary and permanent dentitions, is simply and clearly stated, with chapters often including before and after treatments. Each chapter is structured in an easy-to-read format, beginning with Aim, Objective, and Introduction to the topic, and ending with Prevention, Key Points, and Further Reading sections. Chapter topics include: History, Examination, Diagnosis, Treatment Planning, Primary and Permanent Dentition Injuries, Soft Tissue Injuries, Complicated Crown Fractures, Root Fractures, and Dento-alveolar Fractures.

The photographs complement the text and aid in the comprehension of the trauma and treatment prescribed. In addition, film representation is used to inform the reader about the extent and location of the traumatized area. The book expresses a clear defining line where treatment can be provided in the dental office or would require referral to a secondary treatment center. Trauma both intra- and extraorally is discussed and a special section is devoted to the identification of child abuse along with the role of the dental professional in child protection.

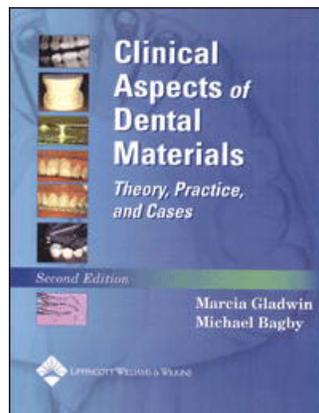
Managing Dental Trauma in Practice is an invaluable reference tool for all dental professionals as well an important read for parents and patients in the waiting room. There are multiple prevention strategies discussed that can serve to educate the staff as well as all patients. Sports trauma photographs, while graphic, are worthy of being shown to all parents who feel mouthguards are unnecessary. In addition, specific predispositions to trauma are mentioned, which can be used to alert patients to potential dental injury. Dental hygienists play a key role in educating patients about the prevention of dental trauma and this book will be an important asset in the teaching process.

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Review of: Clinical Aspects of Dental Materials: Theory, Practice, and Cases

Michele R Sweeney, RDH, MS

Reviewed by Michele R. Sweeney, RDH, MS, assistant professor of dental hygiene, West Liberty State College, West Liberty, West Virginia.



Clinical Aspects of Dental Materials: Theory, Practice, and Cases

Second Edition

Gladwin M and Bagby M

Lippincott, Williams, & Wilkins

Baltimore, Maryland

425 Pages indexed, soft cover

ISBN: 0-7817-4344-3

\$49.00

The study of dental materials presents ever changing information due to constant improvements in techniques and material composition. Gladwin and Bagby's second edition of *Clinical Aspects of Dental Materials: Theory, Practice, and Cases* includes 5 new chapters, a new section of case studies, and edited former chapters to bring the dental hygiene profession up to date on the latest in dental material usage.

The text is divided into 3 sections followed by 2 appendices. The first 3 sections include 35 total chapters and 4 case studies. Part I has 22 chapters dealing with theoretical perspectives. Part II has 13 chapters covering laboratory and clinical

applications. Part III introduces 4 individual case studies examining aspects of dental materials through patient charting, photos, radiographs, and questions. Appendix 1 consists of answers and justifications to review questions found in each of the theoretical chapters found in Part I and the case studies in Part III. Appendix II consists of 35 skill evaluations that may be used in a laboratory/clinical setting.

Part I, with its 22 chapters, is written in an easy-to-follow outline form beginning with an introduction and concluding with a summary. Materials science and physical and mechanical properties are discussed in the first 2 chapters. Subsequent chapters include information on adhesives, direct polymeric restorative materials, amalgam, direct metallic restorative material, dental cements, impression materials, gypsums, removable and fixed prostheses, dental implants, specialty materials, polishing materials, tooth whitening, and oral appliances. In addition, chapters are included on clinical detection of restorative materials during scaling and polishing, infection control, disinfection of impression materials, dentures, and oral appliances, as well as general rules for handling dental materials. Each chapter includes behavioral objectives and a list of key words and phrases. Throughout the chapters the key words and phrases are highlighted in bold for the reader. Chapters conclude with a list of learning activities, review questions, and supplemental readings. Most supplemental readings are current (within the last 5 years). Some of the readings are reference materials (such as dictionaries) or respected texts that are somewhat older. Each of the 22 theoretical chapters covers the materials, their components, their history, and their correct usage. Photos, diagrams, illustrations, and charts further enhance comprehension of the subject matter. Black and white photos are of good to excellent quality. The chapters are written at an appropriate level for the dental hygiene student.

Part II follows with 13 chapters presenting laboratory and clinical applications of 13 different materials and procedures. This section is the cookbook of the text. Using the text as a "how to" guide can easily be accomplished through this lab and clinical application section. Each chapter is preceded by objectives and keywords and phrases. Throughout the chapters, those keywords and phrases are highlighted in bold. The chapters are written in an outlined format just as the theoretical chapters were organized. Subjects include how to handle mixing liners, bases, cements, applying rubber dams, removing rubber dams, pit and fissure sealants, amalgam finishing, amalgam polishing, taking alginate impressions, fabricating study models, trimming study models, fabricating custom trays, elastomeric impressions, vital tooth whitening, debonding orthodontic resins, placing periodontal dressings, removing periodontal dressings, removing sutures, and temporary crowns. Photos and diagrams enhance the reader's comprehension of how to manipulate the dental materials. In each chapter there are handy boxed in areas titled "Tips for the Clinician," "Armamentarium," "Precautions," and "Summary." In the boxed section of "Tips for the Clinician," the authors review important hints that aid in properly handling the chapter's dental material. Armamentarium sections list the needed equipment and materials needed for each procedure. Precaution sections heed warnings about the vulnerabilities of materials. Summary sections review the manipulations and procedures discussed in the chapter. The chapters are easy to follow and give enough information to easily follow the steps for manipulating a material or completing a procedure. Laboratory and clinical application chapters conclude with supplemental readings that include many sources that are less than 5 years old.

Part III includes 4 patient case studies. The section is an excellent review for dental hygiene board case study questions. Each case asks a number of questions regarding restorations, appliances, or other elements dealing with dental materials. Questions are multiple choice and in a format similar to the dental hygiene board exam. Cases include a brief description of the patient, intraoral photos, charting, and/or study models. Each of the cases includes 5-7 questions. All answers and justifications for those answers can be found in Appendix 1 of the text.

Appendix 1 contains answers and justifications to the review questions at the end of the theoretical chapters in Part I. Appendix 1 also contains answers and justification to the case study questions in Part III. Questions in both of these parts are set up in dental hygiene board format. The questions in the chapters and the answers found in the Appendix will be a valuable study tool.

Appendix II will be a bonus for dental materials instructors. The Appendix contains 15 skill evaluations that can be implemented into a laboratory or clinical setting. Each page is perforated for ease of removal and use. Skills evaluated include mixing glass ionomer, mixing zinc-oxide eugenol, applying/removing rubber dams, pit and fissure sealants, amalgam finishing/polishing, alginate impressions, trimming/finishing study models, custom impression trays, elastomeric impressions, constructing bleaching trays, debonding orthodontic resins, placing/removing periodontal dressings, removing sutures, and constructing temporary crowns. The evaluations are set up as grids that include criteria, instructor, and student

evaluation. Each skill lists criteria needed for satisfactory manipulation of material or completion of procedure. The instructor and student may then choose to evaluate according to satisfactory or unsatisfactory performance, accordingly. Both lab and clinical competency levels can be identified on the form. Forms include areas for comments and instructor's signatures.

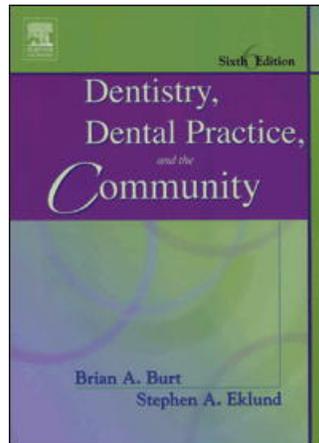
Clinical Aspects of Dental Materials: Theory, Practice, and Cases will be a valuable asset to both the dental hygiene student and faculty. Students will find the text easy to follow and comprehend. The educator will find the skills evaluations valuable for use in lab and clinical settings. The information provided by the review and case study questions will be of great help in preparing for the dental hygiene board exam. Gladwin and Bagby have presented this material in a way that can be easily digested for learning.

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Review of: Dentistry, Dental Practice, and the Community

Ruth Fearing Tornwall, RDH, MS

Reviewed by Ruth Fearing Tornwall, RDH, MS, Instructor IV at the Lamar Institute of Technology in Beaumont, Texas.



Dentistry, Dental Practice, and the Community

Sixth edition

Burt BA and Eklund SA

Elsevier Saunders, 2005

St Louis, Missouri

425 pages, illustrated, indexed, soft cover

ISBN: 0-7216-0515-X

\$49.95

This is the sixth edition of *Dentistry, Dental Practice, and the Community*. The text provides the reader with a comprehensive overview of community oral health. Its purpose is to "present dentistry and dental practice against the backdrop of social events: economic, technological, and demographic trends, as well as the distribution of the oral diseases that dental professionals treat and prevent." The text is written for both dental hygienists and dentists. Like the previous edition, the authors' guiding principle is to lay out the facts on all matters discussed and interpret them as they see them. As a result, many changes have been made in the book to provide the reader with a comprehensive array of subject matter in dentistry. An exceptional feature of the book is its extensive references that provide the readers a chance to pursue further issues that interest them. The references become the basis for an interpretation of the more controversial issues.

The book has 30 chapters and is divided into 5 parts: Dentistry and the Community, Dental Practice, the Methods of Oral Epidemiology, the Distribution of Oral Diseases and Conditions, and Prevention of Oral Diseases in Public Health.

Part I includes 5 chapters and provides content about the dental professions and the public they serve while discussing such topics as ethics, the public-private partnership, public health practice, and health promotion. In Chapter 4, the authors do an excellent job of setting the stage for defining public health, the development of public health in the United States, dental public health, and differences between personal and community health care. Chapter 5, Oral Health Promotion, discusses oral health in the community and among individual patients. Furthermore, the chapter explains what is meant by health promotion and differentiates it from health education.

Part II includes 7 chapters and deals with the structure and financing of dental practices, types of personnel in the dental workforce, infection control and mercury safety, and a new chapter on access to dental care. The chapter on "Reading the Literature," is now attached to a new chapter on "Evidence-based Dentistry." Of interest in chapter 6, is the discussion of quality assurance, its evolution, the recent emphasis on increasing the quality of patient care, and cost control.

Part III includes 6 chapters on oral epidemiology, including information on research designs and survey methods for dental caries, periodontal diseases, dental fluorosis, other conditions and the various indexes used to measure oral disease. Chapter 13, Research Designs in Oral Epidemiology, provides a basic presentation of the essentials of valid research reports to prepare the reader to interpret epidemiological studies, particularly clinical trials, and of other studies involving human subjects.

Part IV, includes 5 chapters and presents content on the distribution of the oral disease in the population along with information on various risk factors. The first chapter in Part IV discusses loss of teeth, the end product of oral disease, the issues and trends in tooth loss, and the reasons why people lose teeth. Other chapters include content on dental caries, periodontal diseases, dental fluorosis, oral cancer, and other oral conditions. Each disease is extensively covered and provides a historical perspective as well as future trends in the area.

Part V of the book covers the prevention of oral diseases and conditions. It includes chapters on fluoride, fluoridation of drinking water, other uses of fluoride in caries prevention, fissure sealants, diet and plaque control, prevention of periodontal diseases, and restricting the use of tobacco. Each chapter comprehensively discusses the background and all the issues surrounding prevention of oral disease in public health.

Burt and Eklund have successfully fulfilled their purpose and their guiding principle in this new edition. This text is an important resource and has practical value for all dental hygienists involved in the dental field. The book is very readable and should be of interest to all dental professionals practicing in this complex environment we now live in.