Preface: Achieving and Maintaining Excellence in Dentoalveolar Surgery ix
Michael A. Kleiman

Medical Management of Patients Undergoing Dentoalveolar Surgery 345
Shelly Abramowicz and Steven M. Roser

The oral and maxillofacial surgeon (OMS) should have an understanding of common medical comorbidities. This understanding allows for risk stratification and thus prevention of potential problems. Remaining knowledgeable regarding diseases, diagnosis, treatment strategies, and pharmacology ultimately improves patient care. This article provides an update on some of the most common medical diseases for the patient undergoing dentoalveolar surgery.

Dental Extractions and Preservation of Space for Implant Placement in Molar Sites 353
Michael S. Block

The clinician is often asked to remove a tooth and place an implant into the site. The implant must be placed with appropriate stability to allow for integration to occur, which requires bone presence. Bone is also necessary to allow for ideal implant positioning within the alveolus for functional and esthetic concerns. The purpose of this article is to discuss the changes in socket dimensions over time and how to promote space maintenance, with an algorithm for treatment based on evidence.

Managing Impacted Third Molars 363
Louis K. Rafetto

Oral and maxillofacial surgeons can be reasonably certain of the behavior of wisdom teeth and the outcomes of different management strategies. An organized approach based on symptom and disease status simplifies management recommendations. The patients who provide the greatest challenge to certainty are those whose wisdom teeth are asymptomatic and disease free. Patients who elect to retain a third molar should be advised about this risk of removal over time. Given the increased complication rate when third molars are removed with increasing age, it may be prudent to extract them by the middle of the third decade.

Coronectomy: Partial Odontectomy or Intentional Root Retention 373
M. Anthony Pogrel

Coronectomy is considered in patients older than 25, where there is an intimate relationship between the roots of a retained lower third molar (occasionally second or first molars) and the inferior alveolar nerve, in noncontraindicated circumstances. It may be used on younger patients with a medium to high risk of inferior alveolar nerve damage. The decision to use this technique is made with the aid of cone-beam computed tomography scans. Short- to medium-term success rate is excellent, but long-term studies are not yet available. The technique is gaining wider acceptance, although there are differences in the indications and actual technique used within and between countries.
Preoperative decision-making is vital to determine potential success of periapical surgery. Adequate exposure of the root apical region is best approached via a sulcular-type incision. Surgical procedures include resection of 2 to 3 mm of the apical portion along with root end preparation and seal. The surgeon must decide if submission of periapical tissues to pathology is indicated.

Pain, swelling, nausea, and vomiting associated with outpatient oral and maxillofacial surgical procedures are common occurrences in daily practice. The need to minimize these often unavoidable consequences of surgical intervention is of utmost importance in delivering a good experience for our patient population, thus improving outcomes of our surgery as well as anesthesia. A review of current therapies available to manage these experiences is presented to enable the practitioner to develop multimodal protocols and custom tailor treatment based on procedure and patient risk factors for these unfortunate consequences of surgery.

The health care industry and delivery systems are placing greater emphasis on making their organizations safe. They do this by cultivating a culture of safety to help anticipate and prevent injuries and documenting and investigating injuries to develop prevention protocols. Many of the strategies used in the hospital industry can be applied to the dentoalveolar surgery practice of oral-maxillofacial surgeons and other dentists. This article discusses the development of a culture of safety in the dentoalveolar practice and gives ideas of how threats of injuries to patients, guests, and the surgical care team can be reduced or eliminated.

Iatrogenic injury to the trigeminal nerve can remain a source of concern and litigation even for the most experienced oral and maxillofacial surgeons. This article provides the most up-to-date evidence-based recommendations for identification, prevention, and management of these injuries to help clinicians provide the highest level of patient care.

The presence of healthy attached tissue at the tooth and implant soft tissue interface correlates with long-term success and stability in function and esthetics. There are several soft tissue grafting procedures that increase the volume and quality of soft tissue and provide coverage on both teeth and implants. Many of these techniques can be used in conjunction with implant placement, or after placement as a means of salvage. This article describes the techniques for augmentation of keratinized and soft tissue around
teeth and implants. These tools should be in the armamentarium of oral and maxillofacial surgeons providing implant services.

Surgical Treatment of Impacted Canines: What the Orthodontist Would Like the Surgeon to Know

Adrian Becker and Stella Chaushu

Videos of two very high impacted canines using cone beam computed tomography accompany this article. One is located high on the palatal side of the incisor root apices and the second in the line of the arch, high above the premolar with interference from abnormal premolar roots

When an impacted permanent maxillary canine has been diagnosed, the referring general practitioner or pediatric dentist thinks in terms of surgery and orthodontics, usually in that order. If there is an existing malocclusion that also requires to be resolved, the orthodontist must undertake a full orthodontic appraisal to plan the overall treatment including a decision on whether to extract or align the impacted tooth. The orthodontist is ultimately responsible to the patient for the success of the treatment plan.

Preprosthetic Surgery

Hillel Ephros, Robert Klein, and Anthony Sallustio

Preprosthetic oral and maxillofacial surgery has changed dramatically over the last 3 decades. Surgical preparation for dentures has been displaced by site development for implants. Nonetheless, there is still a role to play for several preprosthetic procedures. In this article, historical context is provided, enduring concepts are reviewed, and procedures that remain relevant are described and discussed.