

*Parameters of Care:
Clinical Practice Guidelines
for Oral and Maxillofacial Surgery
(AAOMS ParCare 2023)*

PATIENT ASSESSMENT

©Copyright 2023 by the American Association of Oral and Maxillofacial Surgeons.

This document may not be copied or reproduced
without the express written permission of the
American Association of Oral and Maxillofacial Surgeons.

All rights reserved.

J Oral Maxillofac Surg

81:e13-e34, 2023, Suppl 11S

THIS SECTION IS 1 OF 11 CLINICAL SECTIONS INCLUDED IN *AAOMS
PARCARE 2023*, WHICH IS VIEWED AS A LIVING DOCUMENT APPLICABLE
TO THE PRACTICE OF ORAL AND MAXILLOFACIAL SURGERY. IT WILL BE UPDATED
AT DESIGNATED INTERVALS TO REFLECT NEW INFORMATION CONCERNING
THE PRACTICE OF ORAL AND MAXILLOFACIAL SURGERY.

INTRODUCTION

An appropriate preoperative patient assessment is a critical component of an oral and maxillofacial surgery practice. The proper method of obtaining and documenting a patient's medical history and physical examination findings, as well as appropriate diagnostic tests, is essential to ascertaining an accurate diagnosis and developing an effective treatment plan. In addition, a thorough patient evaluation provides the basis for determining patient-specific surgical and anesthetic risk, thereby minimizing morbidity and optimizing patient care. Several specific comorbid conditions require consideration by the Oral and Maxillofacial Surgeon.

The Oral and Maxillofacial Surgeon is trained to complete a thorough patient assessment. Therefore, this section will not describe how to perform an assessment but will organize the assessment process. The assessment process is divided into phases:

1) indications for surgery; 2) specific surgical goals; 3) factors that may affect surgical risks; and 4) outcome assessment. The patient assessment process described in this section establishes a foundation for patient assessment and management as described in subsequent sections of *ParCare 2023*.

Specific diagnostic techniques and physical assessment protocols are purposely not defined. It is not the intent of this document to dictate the exact methods for performing a patient assessment. The Oral and Maxillofacial Surgeon has the latitude to complete a patient assessment based on the clinical circumstances of the patient and/or institutional standards.

PREAMBLE

The Oral and Maxillofacial Surgeon is responsible for an initial history and physical evaluation to determine the risk factors associated with the management of each patient. In some circumstances, the patient's physician may perform the history and physical examination, but it is the responsibility of the Oral and Maxillofacial Surgeon to ascertain whether the information is complete or whether further assessment is indicated based on the specific patient and planned procedure.

GENERAL CRITERIA, PARAMETERS, AND CONSIDERATIONS FOR PATIENT ASSESSMENT

All surgery must be preceded by the patient's or legal guardian's consent, unless an emergent situation dictates otherwise. Emergent circumstances and the indications for treatment should be documented in the patient's record. Informed consent is obtained after the patient or the legal guardian has been informed of the indications for the procedure(s), the goals of treatment, the known benefits and risks of the procedure(s), the expected recovery period, alternative treatment options (including no treatment), and any patient- or procedure-specific factors that may affect the risk. The results of the informed consent process must be documented in the patient medical record. In general, an informed consent document is signed by the patient or guardian, but the OMS is well advised to document in the medical record that the informed consent process occurred and that the patient/guardian provided both verbal and written consent that they understand and are willing to proceed with treatment.

Non-English speaking or hearing/visually impaired patients may require a professional interpreter to obtain informed consent.

DOCUMENTATION: Documentation in a patient's medical record contains critical information and is governed by Health Insurance Portability and Accountability Act regulations. The Oral and Maxillofacial Surgeon is responsible for ensuring that all information contained in the medical record is accurate and complete. Additions, corrections, and/or deletions to the medical records should be clearly identified as to the individual making these changes and date of these changes.

Deletions are done with single line strikethrough with initials in written records or via tracking with electronic medical records.

AAOMS ParCare 2023 includes documentation of subjective and objective findings, diagnoses, and patient management interventions. The final judgment of a specific diagnostic test or the need for medical consultation must be made by the individual OMS according to unique circumstances presented by each patient. In instances when another health care provider assesses the patient health status preoperatively, such as a primary care physician, cardiologist, or pediatrician, the OMS must ensure that the documented assessment meets the parameters set forth in *AAOMS ParCare 2023*. Moreover, the Oral and Maxillofacial Surgeon is responsible for the patients' risk assessment and, ultimately, the decision to perform any surgical procedure(s). No other health care provider may assume this responsibility. There may be sound clinical causes to deviate from *AAOMS ParCare 2023*. When an Oral and Maxillofacial Surgeon deviates from a relevant parameter based on specific situations, document the reason for chosen course of action. Moreover, it should be understood that adherence to these parameters does not guarantee a favorable outcome.

AMERICAN SOCIETY OF ANESTHESIOLOGISTS PHYSICAL STATUS CLASSIFICATION SYSTEM: Based on a thorough patient assessment, an American Society of Anesthesiologists (ASA) physical status should be assigned to all surgical patients, according to the most recent guidelines set forth by the ASA (Appendix 1).

PREOPERATIVE GUIDELINES: Certain medical conditions and therapies, (eg, medication-related osteonecrosis of the jaw [MRONJ] or osteoradionecrosis), can increase the risk of poor wound healing, infection, or other serious complications including osteomyelitis and pathologic jaw fracture.

Prophylactic treatment strategies involving regular dental surveillance can reduce the incidence of postoperative complications in at-risk patients. At-risk patients are asymptomatic but have been previously treated with antiresorptive or radiation therapy (RT). (See AAOMS Position Paper on MRONJ for osteoradionecrosis details).

PREOPERATIVE FASTING GUIDELINES: All healthy patients without a risk of gastroparesis who will undergo a sedation or general anesthetic procedure should maintain a “nothing by mouth” (NPO) status (Appendix 2). The ASA recommends a 2-hour fasting period of clear liquids for all patients. The ASA recommends a fasting period for breast milk of 4 hours, and infant formula or nonhuman milk of 6 hours for neonates and infants. For solid foods in most adult patients, the ASA recommends fasting periods of at least 6 hours (light meal such as toast and clear liquid) and 8 hours (fatty or fried foods or meat). For infants and children, please see Appendix 2.

The preoperative use of gastric stimulants, gastric acid secretion blockers (histamine₂ receptor antagonist agents), antiacids, antiemetic agents, and/or anticholinergic medications (to decrease the risk of pulmonary aspiration) is not routinely recommended. Their use should be based upon the individual patient assessment.

PERIOPERATIVE ANTIBIOTIC THERAPY: Patients with specific cardiac conditions, implantable devices, and joint replacement may require preoperative systemic antibiotics to reduce the risk of distant infections (see Appendix 4 and 5 for specific circumstances). The decision to employ prophylactic perioperative antibiotics is at the discretion of the treating surgeon and should be based upon the patient's clinical condition as well as other comorbidities. Subacute bacterial endocarditis (SBE) antibiotic prophylaxis and total joint replacement (TJR) antibiotic prophylaxis should be based upon the most recent guidelines set forth by the American Heart Association (AHA), American Dental Association (ADA), and AAO (see Appendices).

DISCHARGE CRITERIA: All patients who have had outpatient surgery using sedation or general anesthesia must meet minimal criteria to permit safe discharge from the office or outpatient surgical facility. Such criteria may include either the use of an Aldrete, modified-Aldrete Score, Post-Anesthesia Discharge Scoring System (PADSS or modified PADSS), or equivalent. Also see the *Anesthesia in Outpatient Facilities* chapter. In addition, the patient must arrive at the office or surgical facility with a responsible adult escort for discharge after surgery and anesthesia.

SPECIAL CONSIDERATIONS FOR PEDIATRIC PATIENT ASSESSMENT

The child assessment begins with a careful history, followed by physical examination and radiographic and laboratory evaluation. However, much of the information may be provided by the parents or by both the patient and the parents depending on the maturity of the child. Informed consent for all children, who are considered minors, must be obtained from the parents or legal guardian. Oral and Maxillofacial Surgeons should include children in any discussions about their health and treatment, when appropriate. The Oral and Maxillofacial Surgeon must ascertain that the parent or adult giving the consent is the legal guardian. This is especially critical when the parents are divorced or if the child is living with guardian(s) other than the biologic parents. Emancipated adolescents who are legally responsible for themselves can make their own health care decisions and sign their own consent.

The Oral and Maxillofacial Surgeon must also be aware that the birth sex may not be how the child identifies at the time of care. Careful and thoughtful discussion with the pediatric patient and their parents is necessary to not only utilize the appropriate pronouns for the patient but may also direct the type of care provided. Certain standardized outcomes such as male versus female norms may need to be modified based on the patient's self-identification choice.

Several important aspects of the patient assessment and treatment are distinct to children. The OMS must navigate the child/parent dynamic in regards to the psychological, physical impact of treatment. The surgeon must be the advocate for the minor patient and ensure that all concerned parties understand the procedure, the risks, the benefits, and alternative treatment options. Therapeutic decisions are also affected by the patient's chronologic age and stage of psychological, physical, and dental development. These factors can alter the indications and timing of treatment and must be considered in the final assessment of the pediatric patient. The surgeons must consider the effects of the child's growth on the ultimate outcome of treatment.

Pregnancy status should be assessed in female patients of childbearing age. When evaluating pediatric patients who have congenital or developmental anomalies, a thorough family history and the existence of similar conditions in other relatives or siblings may provide additional useful information. In addition, determining exposure to known teratogens during pregnancy or in the early developmental years is a key component in the evaluation of children who exhibit growth abnormalities.

When performing the physical examination, it is critical to remember the differences between children at various ages compared to adults with regard to anatomy and physiology. For example, children have an epiglottis longer and less rigid

than their adult counterpart and the larynx is more anteriorly and superiorly positioned. Children are more susceptible to hypothermia due to greater body surface area to mass ratio. The autonomic system of a very young child is immature therefore cardiac output is dependent on heart rate.

Oral and Maxillofacial Surgeons are in a unique position to identify child abuse and neglect because a majority of physical signs of abuse occur in the head and neck region. Dentists and physicians are mandated by state laws to report such suspected or confirmed cases of child abuse or neglect. The physical and behavioral diagnostic signs of physical abuse, physical neglect, and sexual abuse include precociousness, unusual redness/tenderness in the oropharyngeal areas, inability to open the mouth, poor hygiene, and wounds and/or fractures in various stages of healing, especially in the younger population, warrant further questioning. The Board of Trustees of AAOMS supported AMA Opinion 2.02 on “Physicians' Obligations in Preventing, Identifying, and Treating Violence and Abuse” adopted in November 2007 and issued in June 2008, supporting the pivotal role of the Oral and Maxillofacial Surgeon in identifying and treating victims of violence and abuse.

PATIENT ASSESSMENT

This section addresses the assessment of the patient's medical history and physical status in all patient care settings, including the documentation of examination findings. The results of the patient assessment are used as a foundation for subsequent clinical sections throughout the remainder of this book.

I. Indications for Patient Assessment

- A. Presentation of a patient to an Oral and Maxillofacial Surgeon for evaluation, diagnosis, continuing care, and/or treatment
- B. Referral to an Oral and Maxillofacial Surgeon for a second opinion regarding diagnosis and management
- C. Planning for inpatient or outpatient surgery or procedure
- D. Scheduled follow-up visit for assessment of outcomes resulting from a treatment, surgery, or procedure
- E. Return of a patient for new condition, evolving condition, and continuing evaluation

II. Specific Goals for Patient Assessment

- A. Perform a problem-focused, age- and ASA-appropriate medical history and physical examination based upon both the history of present illness and the observations of the Oral and Maxillofacial Surgeon
- B. Establish an accurate diagnosis
- C. Determine the need for care or treatment
- D. Identify factors affecting risk to determine patient ability to undergo safe treatment, surgery, and/or anesthesia
- E. Establish the rationale for care, treatment, or surgery of diagnosed conditions
- F. Develop care or treatment recommendations and alternative treatment options, including no treatment
- G. Document findings and recommendations and assign an ASA physical status (Appendix 1)
- H. Provide preoperative patient instructions for planned surgery
 - I. Identify new or previously unrecognized conditions and determine the need for further assessment (eg, laboratory or radiographic) or consultation (eg, with primary care physician or specialist), treatment, surgery, or procedure and perioperative management (eg, autologous blood products)
 - J. Document outcomes and recommendations for further care or treatment
- K. Confirm or refute an established diagnosis as a second opinion
- L. Confirm appropriateness of a planned operation or procedure
- M. Perform an informed consent discussion: Inform the patient/guardian of the findings, diagnosis, treatment options, and risks and benefits of each treatment option, including no treatment
- N. Psychologically prepare the patient for surgery by providing reassurance and review of perioperative expectations
- O. Obtain documentation for predetermination of insurance coverage benefits using current International Classification of Diseases (ICD-10) and Current Procedural Terminology (CPT) codes and guidelines
- P. If you are an out-of-network provider, ensure all disclosures to the patient, including obtaining patient consent where needed, in accordance with the No Surprises Act

III. Specific Factors Affecting Risk for Patient Assessment

Factors that increase the potential for inadequate assessment:

- A. Incomplete initial assessment
- B. Patient's failure to return for scheduled follow-up assessment
- C. Communication barriers (eg, language or cultural barriers, communication disorders, altered mental status, or level of consciousness)
- D. Psychological, social, or gender barriers

PATIENT ASSESSMENT (continued)

- E. Patient's, legal guardian's, or responsible party's failure to disclose information regarding patient history
- F. Degree of patient's and/or family's cooperation and/or compliance
- G. Physical barriers (eg, obesity, trismus, trauma)
- H. Situational barriers (eg, life-threatening emergency, pending litigation)
- I. Regulatory and/or third-party decisions concerning access to care, indicated therapy, drugs, devices, and/or materials

IV. Indicated Therapeutic Parameters for Patient Assessment

Patient assessment may be categorized into many different forms of encounter. Please refer to both the ICD- 10 and the CPT coding manuals, as necessary. These encounters may be either initial or subsequent and may include but are not limited to the following:

The level of patient assessment may be determined by time or the level of medical decision making. If the level is determined on medical decision making, factors may include the number and complexity of the problem(s) addressed during the encounter; the amount and complexity of data to be reviewed and analyzed during the encounter; and the risk of complications and/or morbidity or mortality of patient management. Any level of the patient evaluation may include any or all of the components of a comprehensive history and physical examination.

The CPT published by the American Medical Association should be referred to for guidance when determining the level of evaluation and management services based on time or medical decision making.

Patient assessment should be documented in the medical record. The medical history obtained from the patient, legal guardian, or responsible party; and the physical examination findings form the basis of this document. Documentation of a patient's condition and planned surgery or procedure includes the following elements, as indicated by the patient's presentation or form of encounter. A comprehensive history and physical examination may not be appropriate for all patients, and the components of the history and physical examination should be individualized for each patient.

- A. Office or other outpatient services
 - 1. New patient
 - 2. Established patient
- B. Hospital observation services
- C. Hospital inpatient services (eg, admission)
- D. Consultations
 - 1. Office or other outpatient consultations
 - 2. Initial inpatient consultations
 - 3. Confirmatory consultation (eg, second opinion)
- E. Preoperative assessment for outpatient surgery
- F. Emergency department services
- G. Other: nursing home, rehabilitation facility
- H. Past medical history
 - 1. Chief complaint
 - 2. History of present illness
 - 3. Past medical history, with elaboration of positive and significant negative findings
 - a. Medical, dental, and psychological conditions and/or illnesses
 - b. Hospitalizations
 - c. Anesthesia experience (adverse reactions or complications, such as personal or family history of malignant hyperthermia)
 - d. Past surgical history (operations: major and minor)
 - e. Past dental history
 - f. Medications and dosages (past and present, including herbal medicines, cannabis, and nonprescription/OTC drugs)
 - g. Allergies and reactions (including latex allergy)
 - h. Vaccination status (COVID, Human Papilloma Virus, etc.)
 - 4. Review of systems (general and pertinent)
 - a. General

PATIENT ASSESSMENT (continued)

- b. Head, ears, eyes, nose, and throat (including oral cavity)
- c. Cardiovascular (including exercise tolerance quantified by metabolic equivalent of tasks (METs) activity (See Appendix 3))
- d. Respiratory
- e. Gastrointestinal
- f. Genitourinary (including the date of the last menstrual period, pregnancy status)
- g. Musculoskeletal
- h. Integumentary
- i. Neurologic
- j. Psychiatric
- k. Endocrine
- l. Hematologic/lymphatic
- m. Allergic/immunologic
- 5. Family history
- 6. Social history
 - a. Biologic sex, gender identification
 - b. Occupation
 - c. Substance use (eg, tobacco [pack-years], alcohol [daily amount], cannabis, illicit or recreational drugs [specific drugs and frequency of use]), e-cigarette usage (vaping)
 - d. Other issues, as indicated by the patient's presentation (eg, religious or philosophical objections to care or treatment)
 - e. History of violence and abuse; present or past post-traumatic stress disorder issues
 - f. Coinhabitants (eg, partner, children)

I. Physical examination

The surgeon is responsible for documenting an appropriate history and physical examination, although the patient may be referred to another qualified professional for an examination. For most ASA class I and II patients undergoing outpatient surgery, the history and physical examination may be focused. For the surgical inpatient (depending on individual institutional requirements) and/or patients of advanced ASA status, a more comprehensive history and physical examination may be necessary. A patient's refusal to consent to a medical history and physical examination must be documented in the medical record and cosigned by the patient so that there is no misinterpretation of the treatment options offered.

- 1. General examination (Alert and Oriented [A&O] x 3)
- 2. Vital signs (heart rate, blood pressure [minimum for patient who will undergo anesthesia], temperature, respiratory rate)
- 3. Head, ears, eyes, nose and throat (including oral cavity)
- 4. Neck, including lymph nodes, trachea, and thyroid
- 5. Chest and lungs (inspection, palpation, percussion, auscultation)
- 6. Heart and great vessels (auscultation)
- 7. Breast (deferred, in most cases)
- 8. Abdomen
- 9. Pelvic/rectal (deferred, in most cases)
- 10. Musculoskeletal
- 11. Neurologic
- 12. Skin
- 13. Extremities

J. Adjunctive studies

The decision to obtain any adjunctive studies must be based on the results of the preoperative patient assessment data, ASA physical status, and surgical risk classification. Laboratory or radiologic testing without specific clinical indications is not medically necessary, clinically beneficial, or cost-effective. In determining studies to be performed for imaging purposes, principles of ALARA (as low as reasonably achievable) should be followed. For women of

PATIENT ASSESSMENT (continued)

childbearing age, the decision to perform urine or blood pregnancy testing prior to surgery and anesthesia should be based on an equivocal history of sexual activity and possibility of pregnancy and an uncertainty regarding the date of the last menstrual period. Routine urine or blood pregnancy testing of the pediatric patient is not clinically warranted without a specific indication. Adjunctive studies, when indicated, may include but are not limited to:

Laboratory evaluation:

1. Complete blood count (CBC), white blood cell count, hemoglobin, hematocrit
2. Chemistry-7 (sodium, potassium, chloride, serum bicarbonate, blood urea nitrogen, creatinine, and glucose)
3. Prothrombin time (PT), partial thromboplastin time (PTT), and international normalized ratio (INR)
4. Platelet count
5. Bleeding time
6. Type and screen, type and cross-sensitivity
7. Arterial blood gas
8. Fasting blood glucose, random blood glucose, glucose tolerance test, hemoglobin A_{1c}
9. Pregnancy testing (serum or urine)
10. Pulmonary function tests
11. Liver function tests
12. Urinalysis
13. Blood cultures, C-reactive protein levels

Radiologic examination:

1. Chest radiograph (CXR)
2. Panoramic radiograph
3. Periapical and/or occlusal radiographs
4. Maxillary and/or mandibular radiographs
5. Computed tomography (CT)
6. Computed tomographic angiography (CTA)
7. Cone beam computed tomography (CBCT)
8. Positron emission tomography (PET)
9. Positron emission tomography/computed tomography (PET-CT)
10. Positron emission tomography/magnetic resonance imaging (PET-MRI)
11. Single photon emission computed tomography (SPECT) scan
12. Magnetic resonance imaging (MRI)
13. Magnetic resonance angiography (MRA) (gadolinium, non-iodine based)
14. Ultrasound imaging
15. Radionuclide studies (bone scan)

Other tests:

1. Electrocardiogram (12-lead ECG)
2. Echocardiogram

K. Assessment

The Oral and Maxillofacial Surgeon should compile all of the information related to the results of the patient assessment, ASA status, surgical risk classification, and planned surgical procedure to determine an appropriate differential diagnosis and alternative treatment options, including an option of no treatment. The decisions made at this point in the patient assessment may include a review of the literature and/or consultations with other professionals, such as physicians, dentists, and specialists.

L. Treatment plan

The Oral and Maxillofacial Surgeon may make treatment recommendations based on his/her assessment of the patient's needs and ability to undergo surgery. In general, there are several options for management, and these should be presented to the patient and discussed in terms of risks and benefits of treatment and nontreatment, material risks of the procedures, possible complications, risk of recurrence, and the possible need for additional

PATIENT ASSESSMENT (continued)

procedures. The treatment plan may involve the need to submit a letter to a third-party company for predetermination of benefits for each patient before surgery. As such, it is important to properly code the diagnosis and treatment procedure using the latest ICD-10/CPT terminology.

V. Outcome Assessment Indices for Patient Assessment

Outcome indices are used by the Oral and Maxillofacial Surgeon and Oral and Maxillofacial Surgery specialty to assess aggregate outcomes of care. Outcomes are assessed through clinical functional evaluation of patients and laboratory and radiographic measures.

- A. General favorable outcomes associated with patient assessment
 1. Determination of accurate diagnoses
 2. Documentation of care or treatment recommendations based on an evidence-based rationale, when feasible
 3. Identification and documentation of risk factors associated with the patient assessment and recommended care or treatment versus nontreatment
 4. Successful achievement of assessment goals
 5. Accurate coding strategies
- B. General unfavorable outcomes associated with patient assessment
 1. Failure of the Oral and Maxillofacial Surgeon to perform a complete history and physical examination, except in urgent/emergent situations when this is not possible
 2. Failure of patient to disclose adequate information contributing to incomplete obtainment of a medical history
 3. Failure of patient to disclose information contributing to an incomplete physical examination
 4. Patient-related factors contributing to incomplete or inaccurate diagnoses
 5. Patient-related factors contributing to incomplete or inaccurate treatment recommendations and/or treatment
 6. Complications resulting from inadequate assessment (eg, unrecognized risk factors, such as immunocompromise and those taking antiresorptive drugs.)
 7. Failure of patient to obtain the necessary informed consent information that a prudent patient would want to know before any surgical procedure, including consideration for non-English speaking and hearing/visually impaired patients.
 8. Failure to understand cultural differences and apply the principles of cultural competency
 9. Failure of the patient to disclose a new or evolving condition
 10. Failure of patient to return for scheduled follow-up assessment and management
 11. Failure to obtain appropriate consultation, when indicated
 12. Failure to recognize the need for adjunctive studies based on patient history, physical examination, or ASA status
 13. Failure to adhere to AHA guidelines regarding SBE (Appendix 4) and ADA guidelines for TJR (Appendix 5) prophylaxis regimes in at-risk patients undergoing at-risk procedures
 14. Inappropriate medication prescribing (eg, allergy, drug interactions, overprescribing)
 15. Failure to recognize prescription medication abuse (eg, narcotics)
 16. Iatrogenic patient injury due to inadequate patient assessment
 17. Failure of patient to disclose use of medications or other legal/illegal agents

SPECIFIC CLINICAL SCENARIOS

On occasion, the Oral and Maxillofacial Surgeon must perform an assessment of patients of advanced ASA status. The following clinical scenarios represent several of the more commonly seen disease processes organized by system and provide recommendations for assessment and management. These are only recommendations, and definitive patient assessment and management must be correlated clinically for each patient. In all cases of ASA class II or greater patients, consideration should be given to consultation with a physician for medical clarification of the patient's physiologic condition, and obtainment of a written medical risk assessment with perioperative recommendations to assist the Oral and Maxillofacial Surgeon in determining the appropriateness for outpatient OMS procedures that may include sedation or general anesthesia. For ASA II and greater patients, determination of the patient's MET level (metabolic equivalent) will give important information

SPECIFIC CLINICAL SCENARIOS (continued)

about their cardiac and respiratory reserve (Appendix 3). The following parameters are recommendations ONLY and should be individualized for each specific surgical patient at the discretion of the Oral and Maxillofacial Surgeon.

I. Cardiovascular System

- A. Rheumatic heart disease, valvular heart disease, heart murmurs, congenital heart disease
 - 1. Consider cardiology consultation, if indicated
 - 2. Consider ultrasonography or echocardiography for documentation of cardiac valvular function
 - 3. Follow AHA SBE prophylaxis regimens for the at-risk patients undergoing at-risk procedures (Appendix 4)
- B. Ischemic heart disease, hypertension, angina pectoris, myocardial infarction (MI)
 - 1. Determine current level of control (eg, exercise-tolerance, METs, stable vs unstable angina)
 - 2. Consider consultation with physician
 - 3. Consider *Cardiac Risk Stratification for Noncardiac Surgical Procedures* (Appendix 6)
 - 4. Use stress reduction techniques
 - 5. Consider deferring elective treatment for 1 month, and ideally 3 months, following MI
 - 6. Consider discontinuation of antiplatelet therapy only with cardiology consultation. For bare metal stents, the period of antiplatelet therapy is typically 6 months, while drug-eluting stents require 1 year of antiplatelet therapy after placement
 - 7. Consider limitation of epinephrine dosage contained in local anesthetic solution
 - 8. Be prepared for basic life support/advanced cardiac life support in emergency situations, as well as Pediatric Advanced Life Support for pediatric patients (see section on pediatric anesthesia outpatient sedation)
- C. Congestive heart failure
 - 1. Determine level of control by history and physical examination (eg, shortness of breath, dyspnea on exertion, paroxysmal nocturnal dyspnea, orthopnea, jugular venous distention, ankle edema)
 - 2. Consider consultation with physician
 - 3. Consider ECG, CXR, brain natriuretic peptide level
 - 4. Consider oxygen supplementation
- D. Congenital heart disease

II. Respiratory System

- A. Chronic obstructive pulmonary disease, emphysema
 - 1. Consider consultation with physician
 - 2. Use supplementary steroids when indicated (Note: patients receiving therapeutic doses of corticosteroids who undergo a surgical procedure do not routinely require stress steroids if they continue their usual daily dose. Patients receiving physiologic replacement steroid doses due to primary hypothalamus-pituitary-adrenal axis disease do require perioperative supplementation)
 - 3. Use supplemental oxygen cautiously, since that may inhibit respiratory drive
 - 4. Consider pulmonary function testing to determine the extent of the disease and degree of respiratory reserve
- B. Asthma
 - 1. Consider consultation with physician
 - 2. Determine severity based on history (eg, childhood asthma that has resolved; frequency of inhaler use, respiratory-related hospitalizations) and careful physical examination including respiratory rate and lung auscultation
 - 3. Consider prophylactic use of inhaler
 - 4. Use stress reduction techniques
 - 5. Consider pulmonary function testing

III. Endocrine System

- A. Diabetes mellitus
 - 1. Determine level of diabetic control (based upon history, fasting blood glucose analysis, glucose tolerance test, hemoglobin A_{1c}; Appendix 7)

Note: The decision to obtain immediate glucose level depends on many variables, including patient factors and surgical factors, such as clinical signs and symptoms of hypoglycemia or hyperglycemia, whether the patient is taking insulin or oral hypoglycemic agents only, presurgical NPO status, plan

SPECIFIC CLINICAL SCENARIOS (continued)

for local versus intravenous sedation, general anesthesia, length of planned surgery, and patient's self-reporting of level of glucose control

2. Avoid hypoglycemia
 3. Consider hypoglycemic agent scheduling adjustment
 4. Consider insulin reduction, as necessary (see Appendix 8)
 5. Consider discontinuation or reduction of oral hypoglycemic agents before surgery, although second-generation sulfonylureas may be continued. Consideration for discontinuation of metformin prior to surgery, or for those having IV contrast, to prevent the risk of lactic acidosis should be based on an assessment of renal function. Delayed gastric emptying may occur with glucagon-like peptide-1 (GLP-1) receptor agonists with an increased risk of aspiration. These medications may require prolonged preanesthetic cessation
 6. Consider rescheduling surgery if blood glucose level is significantly elevated, but this decision should be based on an overall assessment of the patient and their planned procedure
 7. Consider prophylactic antibiotics
 8. Consider H₂ blockers and prokinetic agents to reduce aspiration risks
 9. Consider an extended period of NPO status due to gastroparesis with careful prophylaxis with agents that inhibit acid reflux, as necessary
 10. Use stress reduction techniques
 11. Consider cardiac evaluation and potential for "silent" heart disease
- B. Adrenal insufficiency due to exogenous steroid use
1. Use stress reduction techniques
 2. Consider steroid supplementation, although evidence does not support this for the majority of patients on chronic steroid usage

IV. Hematologic Disorders

- A. Coagulopathy, bleeding disorders (eg, von Willebrand disease, hemophilia), therapeutic anticoagulation
1. Determine pertinent laboratory values (eg, CBC with platelets, PT, PTT, INR)
 2. If necessary, temporary discontinuation of anticoagulation or antiplatelet therapy (with prescribing physician consultation) to achieve a reasonable INR for surgical hemostasis based on specific procedures performed
 3. If necessary, discontinuation of anticoagulants (eg, rivaroxaban [Xarelto], dabigatran [Pradaxa], and apixaban [Eliquis]) up to 48 hours prior to surgery, based consultation with prescribing physician (see Appendix 9)
 4. Consider the use of a reversal agent if required based upon the specific anticoagulant/antiplatelet drug used (Appendix 9)
 5. Consider adjustment of medication(s) for the patient on multiple anticoagulants or antiplatelet medications (eg, clopidogrel [Plavix] and aspirin) if necessary and with consultation with prescribing physician
 6. Determine factor level or platelet count if indicated, and supplement as necessary (with hematologist consultation)
 7. For extended length cases or for patients at increased risk, deep vein thrombosis prophylaxis maybe considered using compression stockings or subcutaneous medications (eg, heparin, enoxaparin)
 8. Consider workup for hypercoagulable states: Factor V Leiden, protein C and S deficiency, prothrombin G20210 mutation, and antithrombin III deficiency
 9. The provider should have a detailed history of systemic comorbidities (eg, diabetes, liver failure, and/or kidney failure) when evaluating the INR prior to surgical intervention since studies have suggested that the INR range should be lower than in patients without comorbid disease
- B. Anemia
1. Consider a CBC with platelet count
 2. Consider auto-donation of blood or blood products if a large percentage of blood volume loss during surgery is anticipated

V. Gastrointestinal Disorders

- A. Hepatitis
1. Avoid medications with hepatic metabolism, such as acetaminophen (Tylenol)
 2. Consider liver function tests, PT/PTT, INR, platelet count, bleeding time

SPECIFIC CLINICAL SCENARIOS (continued)

3. Consider hepatitis B surface antigen screening
4. Monitor the use of NSAIDs and OTC medications
5. Consider hepatitis C panel

VI. Renal Disease

- A. Renal failure
 1. Consider avoidance of drugs with renal metabolism
 2. Consider hemodialysis or peritoneal dialysis regimen and schedule surgery accordingly
 3. Consider the impact of medications removed by hemodialysis
 4. Monitor the use of NSAIDs and OTC medications

VII. Neurologic Disorders

Some neurologic disorders, such as intellectual disability, attention-deficit/hyperactivity disorder, autism, and their associated medical treatments may affect the ability of an Oral and Maxillofacial Surgeon to perform an adequate patient assessment and subsequent management. Consideration should be given to comprehensive dental and oral surgical management in an operating facility under sedation or general anesthesia

VIII. Musculoskeletal System

- A. TJR
 1. Follow ADA recommendations regarding prophylaxis with antibiotics (Appendix 5)

IX. Miscellaneous

- A. Obesity
 1. Consider body mass index calculation
 2. Consider altered airway anatomy
 3. Consider decreased respiratory reserve
 4. Consider medication dosage adjustment
 5. Consider an extended period of NPO status
- B. Pregnancy
 1. Defer urgent surgery to the second trimester if possible or ideally postpartum
 2. Consider drug safety pregnancy profiles (Appendix 10)
- C. MRONJ (Also see *Diagnosis and Management of Pathological Conditions* chapter)
 1. Consider consultation with prescribing physician
 2. Consider discontinuation of bisphosphonate medications as well as other antiresorptive agents for a brief period before and/or after surgery if systemic conditions permit and in consultation with the prescribing physician
 3. Consider the risks associated with Rank-L inhibitors such as denosumab (Xgeva)
 4. Consider the risks associated with vascular endothelial growth factor inhibitors such as bevacizumab (Avastin)
 5. Consider debridement, sequestrectomy, or resection of existing necrotic bone as well as extraction of teeth in already necrotic bone
 6. Consider preoperative and perioperative antibiotics and antimicrobial rinses
 7. Consider preoperative pentoxifylline (Trental) and tocopherol (vitamin E)
- D. Malignant hyperthermia
 1. Recognize risk factors, signs, and symptoms
 2. Be prepared to manage/transfer patient for treatment
- E. Radiation Therapy
 1. Ascertain dosage in the area of planned treatment, use of jaw shields, and presence of xerostomia
 2. Consider prophylactic hyperbaric oxygen therapy
 3. Consider preoperative pentoxifylline (Trental) and tocopherol (vitamin E)
 4. Consider preoperative and perioperative antibiotics and antimicrobial rinses
 5. Care with general practitioner colleagues about the necessity of oral cavity preparation and rehabilitation prior to any RT. Consider timing of extractions of any teeth in the field of radiation with poor or guarded prognosis
- F. Communicate and coordinate
- G. Elderly (>65 years old) patients

SPECIFIC CLINICAL SCENARIOS (continued)

1. Consider progressive functional decline of all major organ systems
 2. Consider altered cardiac function and reduced METs
 3. Consider increased perioperative morbidity and mortality with preexisting history of cardiovascular disease or MI
 4. Consider decreased pulmonary reserve and function
 5. Consider advanced age as predictor of postoperative pulmonary complications
 6. Consider increased sensitivity to the respiratory-depressant effects of opioids and benzodiazepines
 7. Consider impaired hepatic and renal function
 8. Consider altered drug metabolism
 9. Consider increased sensitivity to the central depressant effects of anesthetic agents and medications
 10. Consider increased perioperative morbidity and mortality with inability to achieve acceptable levels of pain control
 11. Consider increased incidence of adverse drug reactions and interactions due to polypharmacy
 12. Consider increased susceptibility to postoperative delirium and the effect of anesthetic agents on long-term cognition and memory
 13. Consider increased risk for nutritional deficiencies
 14. Consider cognitive impairment, including effect of opioids if applicable
 15. Consider declines in motor function and occupational tasks
- H. Pediatric considerations (<12 years old)
1. Obtain thorough medical history from knowledgeable parent/guardian or directly from pediatrician if concerned with quality of information.
 2. Consider decreased pulmonary reserve and additive effect of any other pulmonary conditions, especially when planning sedative/anesthetic care.
 3. Consider the differences in dosages and pharmacokinetics of medications, including local and general anesthetic agents in comparison to adults.
 4. Consider and plan for postoperative pain control with appreciation of the increased risk of airway compromise with opioids in this patient population.

APPENDICES**APPENDIX 1****AMERICAN SOCIETY OF ANESTHESIOLOGISTS PHYSICAL STATUS CLASSIFICATION SYSTEM**

ASA class I	A normal healthy patient
ASA class II	A patient with mild systemic disease
ASA class III	A patient with severe systemic disease
ASA class IV	A patient with severe systemic disease that is a constant threat to life
ASA class V	A moribund patient who is not expected to survive without an operation
ASA class VI	A declared brain-dead patient whose organs are being removed for donor purposes

Note: If a surgical procedure is performed emergently, an "E" is added to the previously defined ASA classification.

American Society of Anesthesiologists. <https://www.asahq.org/resources/clinical-information/asa-physical-status-classification-system>. Accessed January 5, 2022. Reprinted with permission.

APPENDIX 2**AMERICAN SOCIETY OF ANESTHESIOLOGISTS FASTING GUIDELINES**

Ingested Material	Minimum Fasting Period
Clear liquids	2 hours
Breast milk	4 hours
Infant formula	6 hours
Nonhuman milk	6 hours
Light meal	6 hours
Fatty meal	8 hours

American Society of Anesthesiologists: Practice guidelines for preoperative fasting and the use of pharmacologic agents to reduce the risk of pulmonary aspiration: application to healthy patients undergoing elective procedures. *Anesthesiology* 114:495, 2011. Reprinted with permission.

APPENDIX 3

ESTIMATED ENERGY REQUIREMENTS FOR VARIOUS ACTIVITIES

Can You		Can You	
1 MET	Take care of yourself?	4 METs	Climb a flight of stairs or walk up a hill?
↓	Eat, dress, or use the toilet?	↓	Walk on level ground at 4 mph?
↓	Walk indoors around the house?	↓	Run a short distance?
↓		↓	
↓	Walk a block or 2 on level ground at 2-3 mph?	↓	Do heavy work around the house like scrubbing floors or lifting or moving heavy furniture?
4 METs	Do light work around the house like dusting or washing dishes?	↓	Participate in moderate recreational activities like golf, bowling, dancing, doubles tennis, or throwing a baseball or football?
		↓	
		>10 METs	Participate in strenuous sports like swimming, singles tennis, football, basketball, or skiing?

Fleisher LA, Beckman JA, Brown KA, et al: ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery. *J Am Coll Cardiol* 50:e159, 2007.

APPENDIX 4

AMERICAN HEART ASSOCIATION PREVENTION OF INFECTIVE ENDOCARDITIS

Cardiac Conditions Associated With the Highest Risk of Adverse Outcome From Endocarditis for Which Prophylaxis With Dental Procedures Is Recommended

Prosthetic cardiac valve Previous IE
Congenital heart disease (CHD)*
Unrepaired cyanotic CHD, including palliative shunts and conduits
Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure†
Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibits endothelialization)
Cardiac transplantation recipients who develop cardiac valvulopathy

* Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD.

† Prophylaxis is recommended because endothelialization of prosthetic material occurs within 6 months after the procedure.

Dental Procedures for Which Endocarditis Prophylaxis Is Recommended for Patients

*All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa**

* The following procedures and events do not need prophylaxis: routine anesthetic injections through noninfected tissue, taking dental radiographs, placement of removable prosthodontic or orthodontic appliances, adjustment of orthodontic appliances, placement of orthodontic brackets, shedding of deciduous teeth, and bleeding from trauma to the lips or oral mucosa.

Regimens for a Dental Procedure at a Single Dose 30-60 Minutes Before Procedure

Regimen: Single Dose 30 to 60 Min Before Procedure			
Situation	Agent	Adults	Children
Oral	Amoxicillin	2 g	50 mg/kg
Unable to take oral medication	Ampicillin	2 g IM or IV	50 mg/kg IM or IV
	OR		
	Cefazolin or ceftriaxone	1 g IM or IV	50 mg/kg IM or IV
Allergic to penicillins or ampicillin-oral	Cephalexin*†	2 g	50 mg/kg
	OR		
	Azithromycin or clarithromycin	500 mg	15 mg/kg
	OR		
	Doxycycline	100 mg	<45 kg; 4.4 mg/kg; >45 kg; 100 mg
Allergic to penicillin or ampicillin and unable to take oral medication	Cefazolin or ceftriaxone†	1 g IM or IV	50 mg/kg IM or IV

Clindamycin is no longer recommended for antibiotic prophylaxis for a dental procedure.

Abbreviations: IM, intramuscular; IV, intravenous.

* Or other first- or second-generation oral cephalosporin in equivalent adult or pediatric dosage.

† Cephalosporins should not be used in an individual with a history of anaphylaxis, angioedema, or urticaria with penicillins or ampicillin. In: Walter R. Wilson, Michael Gewitz, Peter B. Lockhart, Ann F. Bolger, Daniel C. DeSimone, Dhruv S. Kazi, David J. Couper, et al. Prevention of Viridans Group Streptococcal Infective Endocarditis: A Scientific Statement From the American Heart Association. *Circulation* 143 (20): e963-978, 2021.

APPENDIX 5**AMERICAN DENTAL ASSOCIATION ANTIBIOTIC PROPHYLAXIS FOR DENTAL PATIENTS WITH TOTAL JOINT REPLACEMENTS****Management of Patients With Prosthetic Joints Undergoing Dental Procedures****Clinical recommendation:**

In general, for patients with prosthetic joint implants, prophylactic antibiotics are not recommended prior to dental procedures to prevent prosthetic joint infection.

For patients with a history of complications associated with their joint replacement surgery who are undergoing dental procedures that include gingival manipulation or mucosal incision, prophylactic antibiotics should only be considered after consultation with the patient and orthopedic surgeon.* To assess a patient's medical status, a complete health history is always recommended when making final decisions regarding the need for antibiotic prophylaxis.

Clinical reasoning for the recommendation:

- There is evidence that dental procedures are not associated with prosthetic joint implant infections.
- There is evidence that antibiotics provided before oral care do not prevent prosthetic joint implant infections.
- There are potential harms of antibiotics including risk for anaphylaxis, antibiotic resistance, and opportunistic infections like *Clostridium difficile*.
- The benefits of antibiotic prophylaxis may not exceed the harms for most patients.
- The individual patient's circumstances and preferences should be considered when deciding whether to prescribe prophylactic antibiotics prior to dental procedures.

* In cases where antibiotics are deemed necessary, it is most appropriate that the orthopedic surgeon recommend the appropriate antibiotic regimen and when reasonable write the prescription. Copyright © 2015 American Dental Association. All rights reserved. This page may be used, copied, and distributed for non-commercial purposes without obtaining prior approval from the ADA. Any other use, copying, or distribution whether in printed or electronic format, is strictly prohibited without the prior written consent of the ADA. ADA Center for Evidence-Based Dentistry™. Sollecito TP, Abt E, Lockhart PB, et al: The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints: Evidence-based clinical practice guidelines for dental practitioners. A report of the American Dental Association Council on Scientific Affairs. *J Am Dent Assoc* 146:11, 2015

APPENDIX 6**CARDIAC RISK* STRATIFICATION FOR NONCARDIAC SURGICAL PROCEDURES**

Risk Stratification	Procedure Examples
High (reported cardiac risk often more than 5%)	Aortic and other major vascular surgery Peripheral vascular surgery
Intermediate (reported cardiac risk generally 1 to 5%)	Intraperitoneal and intrathoracic surgery Carotid endarterectomy Head and neck surgery Orthopedic surgery Prostate surgery
Low [†] (reported cardiac risk generally less than 1%)	Endoscopic procedures Superficial procedure Cataract surgery Breast surgery Ambulatory surgery

* Combined incidence of cardiac death and nonfatal myocardial infarction.

† These procedures do not generally require further preoperative cardiac monitoring. Fleisher LA, Beckman JA, Brown KA, et al. ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery. *J Am Coll Cardiol*. 50:e159, 2007

APPENDIX 7**THE RELATIONSHIP AMONG HBA1C, BLOOD GLUCOSE, AND EAG***

Hb _{a1c} %	Blood Glucose (mg/dl)	eAG (mmol/l)
6	126	7.0
6.5	140	7.8
7	154	8.6
7.5	169	9.4
8	183	10.1
8.5	197	10.9
9	212	11.8
9.5	226	12.6
10	240	13.4

* Adapted from: https://professional.diabetes.org/diapro/glucose_calc.

APPENDIX 8

PERIOPERATIVE INSULIN MANAGEMENT

Insulin Regimen	Day Before Surgery	Day of Surgery	Comments
Insulin pump	No change	No change	Use “sick day” or “sleep” basal rates
Long-acting peakless insulins	No change	75-100% of morning dose	Reduce nighttime dose if history of nocturnal or morning hypoglycemia
On the day of surgery, the morning dose of basal insulin may be administered			
Intermediate-acting insulins	No change in daytime dose	50-75% of morning dose	on arrival to the ambulatory surgery facility
	75% of dose if taken in the evening		See comments for long- acting insulins
Fixed combination insulins	No change	50-75% of morning dose of intermediate-acting component	Lispro-protamine only available in combination, therefore use insulin instead on the day of surgery. See the comments for long-acting insulins
Short- and rapid-acting insulins	No change	Hold the dose	
Non-insulin injectables	No change	Hold the dose	

Joshi GP, Chung F, Vann MA, et al. Society for Ambulatory Anesthesia consensus statement on perioperative blood glucose management in diabetic patients undergoing ambulatory surgery. *Anesth Analg* 111:1378, 2010. Reprinted with permission.

APPENDIX 9

ANTIPLATELET AND ANTICOAGULANT DRUGS

Anticoagulants (Direct Oral Anticoagulants)		Mechanism of Action	Reversal Agent Generic/ Proprietary	Discontinue (D/C) or Not (N)	Antiplatelet Medication (Novel Oral Antiplatelets/ Others)		Mechanism of Action	Reversal Agent Generic/ Proprietary	Discontinue (D/C) or Not (N)
Generic	Proprietary				Generic	Proprietary			
Warfarin Half-life: 20-60 hours	Coumadin	Antagonist of vitamin K, and affecting II, VII, IX, X	Vitamin K/ Phytonadione Kcentra	D/C based upon INR (If > 4 no surgery)	Acetyl salicylic acid Half-life: 15- 20 min	Aspirin, BioPak, Adira	Inhibits TXA ₂ and platelet aggregation	None	D/C depends upon dosing: 325 vs 81 mg
Dabigatran Half-life: 12-17 hours	Pradaxa	Inhibitor of free thrombin. Thrombin bound to fibrin; inhibits activity of IIa (INR not required)	Prothrombin Complex Concentrate (4-factor PCC) Isdarucizumab Praxbind	N based upon number of teeth to be removed (>2 discuss with physician)	Dipyridamole	Persantine	Blocks adenosine transport in platelets, erythrocytes and endothelial cells. Acts on platelet A ₂ -receptors increasing cAMP and blocks platelet aggregation	None	Works with ASA and not usually used alone. Short half-life D/C based upon dual effects with other antiplatelet drugs
Rivaroxaban Half-life: 9-13 hours	Xarelto	Selective factor Xa inhibitors (INR not required)	Andexanet Alfa Andexxa	N based upon the number of teeth; ie > 2-3	Clopidogrel bisulfate Half-life: 7-9 hours	Plavix, Iscover	Inhibit platelet aggregation by blocking ADP binding to platelet receptors (P ₂ Y ₁₂) and activation of GPIIb-IIIa complex	None	Do not D/C up to 1 year. After 1 year check with physician prior to D/C based upon complexity of procedure
Apixaban Half-life: 9-14 hours	Eliquis	Selective factor Xa inhibitors (INR not required)	Andexanet Alfa Andexxa	N based upon the number of teeth; ie > 2-3	Ticlopidine hydrochloride	Ticlid, Ticlodone	Inhibits platelet binding to ADP-fibrinogen as well as platelet aggregation	None	D/C 10-14 days prior to elective surgery
Heparin (LMWH) Enoxaparin Half-life: 4.5 hr Dalteparin Half-life: 2.2 hr	Lovenox Fragmin	Inhibit activity of Xa and IIa	Protamine sulfate	Used for bridging to avoid undue thromboembolic events	Cilostazol	Pletal	Prevents platelet aggregation and induces vasodilatory effects	None	Must D/C 10-14 day prior to elective surgery
			Protamines		Prasugrel Half-life: 7 hours	Effient	A thienopyridine that binds irreversibly to P ₂ Y ₁₂ platelet receptors	None	N: do not D/C for elective surgery
					Ticagrelor Half-life: 7-9 hours	Brilique	A thienopyridine that binds irreversibly to P ₂ Y ₁₂ platelet receptors	Bentracimab Brilinta	N: do not D/C for elective surgery

APPENDIX 10

PREGNANCY RISK CATEGORIES (FDA CATEGORIES)

FDA Pregnancy Category Definition (Language summarized from 21 CFR 201.57)

Category	Definition
A	Adequate and well-controlled (AWC) studies in pregnant women have failed to demonstrate a risk to the fetus in the first trimester of pregnancy (and there is no evidence of a risk in later trimesters).
B	Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no AWC studies in humans AND the benefits from the use of the drug in pregnant women may be acceptable despite its potential risks OR animal studies have not been conducted and there are no AWC studies in humans.
C	Animal reproduction studies have shown an adverse effect on the fetus, there are no AWC studies in humans, AND the benefits from the use of the drug in pregnant woman may be acceptable despite its potential risks OR animal studies have not been conducted and there are no AWC in humans.
D	There is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience or studies in humans, BUT the potential benefits from the use of the drug in pregnant women may be acceptable despite its potential risks (eg, if the drug is needed in a life-threatening situation or serious disease for which safer drugs cannot be used or are ineffective).
X	Studies in animals or humans have demonstrated fetal abnormalities OR there is positive evidence of fetal risk based on adverse reaction reports from investigational or marketing experience, or both, AND the risk of the use of the drug in a pregnant woman clearly outweighs any possible benefit (eg, safer drugs or other forms of therapy are available).

Food and Drug Association (FDA) WebWebsiteWeb site. <http://www.fda.gov/downloads/advisorycommittees/committeesmeetingmaterials/pediatricadvisorycommittee/ucm272377.pdf>. Accessed January 11, 2022. Current FDA labeling has changed to remove these categories. Table is presented for reference purposes only.

SELECTED REFERENCES—PATIENT ASSESSMENT

This list of selected references is intended only to acknowledge some of the sources of information drawn on in the preparation of this document. Citation of the reference material is not meant to imply endorsement of any statement contained in the reference material. The list is not an exhaustive compilation of information on the topic. Readers should consult other sources to obtain a complete bibliography.

- Agarwal V, Schlieve T: An update on medication-related osteonecrosis of the jaws: 18 years of experience. *Sel Read Oral Maxillofac Surg* 28:1, 2021
- Alao U, Pydisetty R, Sandiford NA: Antibiotic prophylaxis during dental procedures in patients with in situ lower limb prosthetic joints. *Eur J Orthop Surg Traumatol* 25:217, 2015
- American Academy of Pediatric Dentistry: Guideline on Antibiotic Prophylaxis for Dental Patients at Risk for Infection. Chicago, IL, American Academy of Pediatric Dentistry, 2014. *Pediatr Dent* 38:328. Also available in the AAPD Oral Health Policies Reference Manual located at: http://www.aapd.org/media/Policies_Guidelines/G_AntibioticProphylaxis1.pdf. Accessed January 5, 2022
- Pediatr Dent* 38:334, 2016. Also available in the AAPD Oral Health Policies Reference Manual located at: American Academy of Pediatric Dentistry: Guideline on Dental Management of Pediatric Patients Receiving Chemotherapy, Hematopoietic Cell Transplantation, And/or Radiation. American Academy of Pediatric Dentistry, 2013 http://www.aapd.org/media/Policies_Guidelines/G_Chemo1.pdf. Accessed January 5, 2022
- Pediatr Dent* 38:216, 2016. Also available in the AAPD Oral Health Policies Reference Manual located at: American Academy of Pediatrics and the American Academy of Pediatric Dentistry: Guideline for Monitoring and Management of Pediatric Patients before, during, and after Sedation for Diagnostic and Therapeutic Procedures: Update 2016. American Academy of Pediatric Dentistry, 2016 http://www.aapd.org/media/Policies_Guidelines/G_Sedation1.pdf. Accessed January 5, 2022
- American Association of Oral and Maxillofacial Surgeons (AAOMS): Office Anesthesia Evaluation Manual (9th ed). AAOMS, 2018
- American Dental Association, American Academy of Orthopedic Surgeons: Advisory statement: Antibiotic prophylaxis for dental patients with total joint replacements. *J Am Dent Assoc* 134:895, 2003
- (Approved by the ASA House of Delegates on October 14, 1987 and last affirmed on October 20, 2015). Available at: American Society of Anesthesiologists: Basic Standards for Preanesthesia Care. The Society, 2015 <http://www.asahq.org/quality-and-practice-management/standards-and-guidelines>. Accessed January 5, 2022
- (Approved by the ASA House of Delegates on October 15, 2003, and last amended on October 22, 2013.). Available at: American Society of Anesthesiologists: Guidelines for Ambulatory Anesthesia and Surgery. The Society, 2013 <http://www.asahq.org/quality-and-practice-management/standards-and-guidelines>. Accessed January 5, 2022
- (Approved by the ASA House of Delegates in October 1999 and revised in October 2010.). Available at: American Society of Anesthesiologists: Practice Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration. Application to Healthy Patients Undergoing Elective Procedures. The Society, 2010 <http://www.asahq.org/quality-and-practice-management/standards-and-guidelines>. Accessed January 5, 2022
- Berizin AE, Krenzer AA, Martovitskaya YV, et al: The utility of biomarker risk prediction score in patients with chronic heart failure. *Int J Clin Exp Med* 8:18255, 2015
- Bickley LS: Bates' Guide to Physical Examination and History Taking (ed 12). Lippincott, Williams & Wilkins, 2022
- Bock M, Johansson T, Fritsch G, et al: The impact of preoperative testing for blood glucose concentration and haemoglobin A1c on mortality, changes in management and complications in noncardiac elective surgery: A systematic review. *Eur J Anaesthesiol* 32:152, 2015
- Born H, Persky M, Kraus DH, et al: Electronic cigarettes: A primer for clinicians. *Otolaryngol Head Neck Surg* 153(5), 2015
- Cillo JE Jr, Basi D, Peacock Z, et al: Proceedings of the American association of oral and maxillofacial surgeons 2015 Research Summit. *J Oral Maxillofac Surg* 74:429, 2016
- Constantinides F, Rizzo R, Pascozio L, et al: Managing patients taking novel oral anticoagulants (NOAS) in dentistry: A discussion paper on clinical implications. *BMC Oral Health* 16:5, 2016
- Cryer MJ, Horani T, DiPette DJ: Diabetes and hypertension: A comparative review of current guidelines. *J Clin Hypertens* 18:95, 2016
- Eftekharian H, Vahedi R, Karagah T, et al: Effect of tranexamic acid irrigation on perioperative blood loss during orthognathic surgery: A double-blind, randomized controlled clinical trial. *J Oral Maxillofac Surg* 73:129, 2015

19. Fliefel R, Troltzsch M, Kuhnisch J, et al: Treatment strategies and outcomes of bisphosphonate-related osteonecrosis of the jaw (BRONJ) with characterization of patients: A systematic review. *Int J Oral Maxillofac Surg* 44:568, 2015
20. Friedlander AH, Chang TI, Hazboun RC, et al: Critique of American dental association Council on Scientific Affairs clinical practice guideline: Use of prophylactic antibiotics before dental procedures in patients with prosthetic joints. *J Oral Maxillofac Surg* 73:1242, 2015
21. Gajdos C, Kile D, Hawn MT, et al: The significance of preoperative impaired sensorium on surgical outcomes in nonemergent general surgical operations. *JAMA Surg* 150:30, 2015
22. Grass F, Bertrand PC, Schäfer M: Compliance with preoperative oral nutritional supplements in patients at nutritional risk—only a question of will? *Eur J Clin Nutr* 69:525, 2015
23. Greenwood M: Essentials of medical history-taking in dental patients. *Dent Update* 42:308, 2015
24. Grifasi C, Calogero A, Esposito A, et al: Perioperative care of elderly outpatient: A review. *Ann Ital Chir* 86:100, 2015
25. Gröbe A, Fraederich M, Smeets R, et al: Postoperative bleeding risk for oral surgery under continued clopidogrel antiplatelet therapy. *Biomed Res Int* 2015:823651, 2015
26. Habib G, Lancellotti P, Antunes MJ: 2015 ESC guidelines for the management of infective endocarditis: The task force for the management of infective endocarditis of the European Society of cardiology (ESC) endorsed by: European association for Cardio-Thoracic surgery (EACTS), the European association of Nuclear medicine (EANM). *Eur Heart J* 36:3075, 2015
27. Hodgson LE, Murphy PB, Hart N: Respiratory management of the obese patient undergoing surgery. *J Thorac Dis* 7:943, 2015
28. Johnston S: An evidence summary of the management of patients taking direct oral anticoagulants (DOACs) undergoing dental surgery. *Int J Oral Maxillofac Surg* 45:618, 2016
29. Johnston S: An evidence summary of the management of the care of patients taking novel oral antiplatelet drugs undergoing dental surgery. *J Am Dent Assoc* 147:271, 2016
30. Joint Commission: Comprehensive Accreditation Manual for Hospitals 2016. The Joint Commission, 2016
31. Kämmerer PW, Frerich B, Liese J, et al: Oral surgery during therapy with anticoagulants—a systematic review. *Clin Oral Investig* 19:171, 2015
32. Kane B, Fowler SJ, Niven R: Refractory asthma - beyond step 5, the role of new and emerging adjuvant therapies. *Chron Respir Dis* 12:69, 2015
33. Kannan A, Poongkunran C, Shenoy S, et al: Perioperative management of anticoagulation—review of latest evidence. *Am J Ther* 23:e474, 2016
34. Kuhn T, Basch P, Barr M, et al: Clinical documentation in the 21st century: Executive summary of a policy position paper from the American College of physicians. *Ann Intern Med* 162:301, 2015
35. Kuwajerwala NK, Reddy RC, Kanthimathinathan VS, et al: Perioperative medication management. Available at: <http://emedicine.medscape.com/article/284801-print>. Accessed January 5, 2022
36. Leiss W, Méan M, Limacher A, et al: Polypharmacy is associated with an increased risk of bleeding in elderly patients with venous thromboembolism. *J Gen Intern Med* 30:17, 2015
37. Loh-Trivedi M, Rothenberg DM: Perioperative management of the diabetic patient. Available at: <http://emedicine.medscape.com/article/284451-print>. Accessed January 5, 2022
38. Mar PL, Familtsev D, Ezekowitz MD, et al: Periprocedural management of anticoagulation in patients taking novel oral anticoagulants: Review of the literature and recommendations for specific populations and procedures. *Int J Cardiol* 202:578, 2016
39. Olmos-Carrasco O, Pastor-Ramos V, Espinilla-Blanco R, et al: Hemorrhagic complications of dental extractions in 181 patients undergoing double antiplatelet therapy. *J Oral Maxillofac Surg* 73:203, 2015
40. Ruggiero SL, Dodson TB, Aghaloo T, et al: American Association of Oral and Maxillofacial Surgeons position paper on medication-related osteonecrosis of the jaws-2022 update. *J Oral Maxillofac Surg* 80:920, 2022
41. Skaistis J, Tagami T: Risk of fatal bleeding in episodes of major bleeding with new oral anticoagulants and vitamin K antagonists: A systematic review and meta-analysis. *PLoS One* 10:e0137444, 2015
42. Sollecito TP, Abt E, Lockhart PB, et al: The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints: Evidence-based clinical practice guideline for dental practitioners—A report of the ADA Council on Scientific Affairs. *J Am Dent Assoc* 146:11, 2015
43. Stephan D, Gaertner S, Cordeanu EM: A critical appraisal of the guidelines from France, the UK, Europe and the USA for the management of hypertension in adults. *Arch Cardiovasc Dis* 108:453, 2015
44. Stierer T, Collop NA: Perioperative assessment and management for sleep apnea in the ambulatory surgical patient. *Chest* 148:559, 2015
45. Wing TL: ICD-10 medical coding: The role of perioperative services in addressing implementation challenges. *AORN J* 103:177, 2016
46. Zhao B, Wang P, Dong Y, et al: Should aspirin be stopped before tooth extraction? A meta-analysis. *Oral Surg Oral Med Oral Pathol Oral Radiol* 119:522, 2016
47. de Jonge MC, Bukman AJ, van Leeuwen L, Onrust SA, Kleinjan M: Latent Classes of substance use in young adults - a systematic review. *Subst Use Misuse* 57(5):769–785. <https://doi.org/10.1080/10826084.2022.2040029>, 2022
48. Manfredi M, Dave B, Percudani D, et al: World workshop on oral medicine VII: Direct anticoagulant agents management for invasive oral procedures: A systematic review and meta-analysis. *Oral Dis* 25(Suppl 1):157–173. <https://doi.org/10.1111/odi.13086>, 2019
49. Tokarek T, Homaj M, Zabojszcz M, et al: Knowledge on the guideline-recommended use of antiplatelet and anticoagulant therapy during dental extractions: A contemporary survey among polish dentists. *Kardiologia Pol* 78(11):1122–1128. <https://doi.org/10.33963/KP.15588>, 2020
50. Burnett AE, Ragheb B, Kaatz S: Perioperative consultative hematology: Can you clear my patient for a procedure? *Hematology Am Soc Hematol Educ Program* 2021(1):521–528. <https://doi.org/10.1182/hematology.2021000287>, 2021
51. Fabbro M 2nd, Dunn S, Rodriguez-Blanco YF, Jain P: A narrative review for perioperative physicians of the 2017 ACC expert consensus decision pathway on management of bleeding in patients on oral anticoagulants. *J Cardiothorac Vasc Anesth* 33(2):290–301. <https://doi.org/10.1053/j.jvca.2018.07.023>, 2019
52. Cabbar F, Cabbar AT, Coşansu K, Çekirdekçi Eİ: Effects of direct oral anticoagulants on quality of life during periprocedural management for dental extractions. *J Oral Maxillofac Surg* 77(5):904–911. <https://doi.org/10.1016/j.joms.2018.11.032>, 2019
53. Suresh V, Bishawi M, Manning MW, et al: Management of patients with left ventricular assist devices requiring teeth extraction: Is halting anticoagulation appropriate? *J Oral Maxillofac Surg* 76(9):1859–1863. <https://doi.org/10.1016/j.joms.2017.10.022>, 2018
54. Hassona Y, Malamos D, Shaqman M, Baqain Z, Scully C: Management of dental patients taking direct oral anticoagulants: Dabigatran. *Oral Dis* 24(1-2):228–232. <https://doi.org/10.1111/odi.12755>, 2018
55. Gómez-Moreno G, Fernández-Cejas E, Aguilar-Salvatierra A, de Carlos F, Delgado-Ruiz RA, Calvo-Guirado JL: Dental implant surgery in patients in treatment by dabigatran. *Clin Oral Implants Res* 29(6):644–648. <https://doi.org/10.1111/clr.12785>, 2018
56. Berton F, Costantinides F, Rizzo R, et al: Should we fear direct oral anticoagulants more than vitamin K antagonists in simple single tooth extraction? A prospective comparative study. *Clin Oral Investig* 23(8):3183–3192. <https://doi.org/10.1007/s00784-018-2739-9>, 2019
57. Madeley E, Duane B: Oral anticoagulant therapy and tooth extraction, does the evidence support drug holidays? *Evid Based Dent* 19(2):53–54. <https://doi.org/10.1038/sj.ebd.6401308>, 2018
58. Ockerman A, Vanhaverbeke M, Miclotte I, et al: Tranexamic acid to reduce bleeding after dental extraction in patients treated with non-vitamin K oral anticoagulants: Design and rationale of the EXTRACT-NOAC trial. *Br J Oral Maxillofac Surg* 57(10):1107–1112. <https://doi.org/10.1016/j.bjoms.2019.10.297>, 2019

59. Lababidi E, Breik O, Savage J, Engelbrecht H, Kumar R, Crossley CW: Assessing an oral surgery specific protocol for patients on direct oral anticoagulants: A retrospective controlled cohort study. *Int J Oral Maxillofac Surg* 47(7):940–946. <https://doi.org/10.1016/j.ijom.2018.03.009>, 2018
60. Dézsi CA, Dézsi BB, Dézsi AD: Management of dental patients receiving antiplatelet therapy or chronic oral anticoagulation: A review of the latest evidence. *Eur J Gen Pract* 23(1):196–201. <https://doi.org/10.1080/13814788.2017.1350645>, 2017
61. Müller M, Schlittler F, Schaller B, Nagler M, Exadaktylos AK, Sauter TC: Characteristics, treatment and outcome of bleeding after tooth extraction in patients on DOAC and phenprocoumon compared to non-anticoagulated patients—a retrospective study of emergency department consultations. *Clin Oral Investig* 23(5):2273–2278. <https://doi.org/10.1007/s00784-018-2676-7>, 2019
62. Miclotte I, Vanhaverbeke M, Agbaje JO, et al: Pragmatic approach to manage new oral anticoagulants in patients undergoing dental extractions: A prospective case-control study. *Clin Oral Investig* 21(7):2183–2188. <https://doi.org/10.1007/s00784-016-2010-1>, 2017
63. Caliskan M, Tükel HC, Benlidayi ME, Deniz A: Is it necessary to alter anticoagulation therapy for tooth extraction in patients taking direct oral anticoagulants? *Med Oral Patol Oral Cir Bucal* 22(6):e767–e773. <https://doi.org/10.4317/medoral.21942>, 2017
64. Rocha AL, Oliveira SR, Souza AF, et al: Bleeding assessment in oral surgery: A cohort study comparing individuals on anticoagulant therapy and a non-anticoagulated group. *J Craniomaxillofac Surg* 47(5):798–804. <https://doi.org/10.1016/j.jcms.2019.01.049>, 2019
65. Yoshikawa H, Yoshida M, Yasaka M, et al: Safety of tooth extraction in patients receiving direct oral anticoagulant treatment versus warfarin: A prospective observation study. *Int J Oral Maxillofac Surg* 48(8):1102–1108. <https://doi.org/10.1016/j.ijom.2019.01.013>, 2019
66. Ferrara JT, Tehrani GM, Chen Q, et al: Evaluation of an enhanced recovery after surgery protocol (ERAS) for Same-day discharge and reduction of opioid use following Bimaxillary orthognathic surgery. *J Oral Maxillofac Surg* 80(1):38–46. <https://doi.org/10.1016/j.joms.2021.07.002>, 2022
67. Stratton M, Waite PD, Powell KK, Scopell MM, Kukreja P: Benefits of the enhanced recovery after surgery pathway for orthognathic surgery. *Int J Oral Maxillofac Surg* 51(2):214–218. <https://doi.org/10.1016/j.ijom.2021.04.008>, 2022
68. Kim C, Kim JS, Kim H, et al: Consensus decision-making for the management of antiplatelet therapy before non-cardiac surgery in patients who underwent percutaneous Coronary intervention with second-generation drug-eluting stents: A cohort study. *J Am Heart Assoc* 10(8):e020079. <https://doi.org/10.1161/JAHA.120.020079>, 2021
69. Villanueva J, Salazar J, Alarcón A, et al: Antiplatelet therapy in patients undergoing oral surgery: A systematic review and meta-analysis. *Med Oral Patol Oral Cir Bucal* 24(1):e103–e113. <https://doi.org/10.4317/medoral.22708>, 2019
70. Shantsila E, Koziel-Siołkowska M, Lip GY: Antiplatelet agents and anticoagulants for hypertension. *Cochrane Database Syst Rev* 7:CD003186. <https://doi.org/10.1002/14651858.CD003186.pub4>, 2022
71. Isted A, Cooper L, Colville RJ: Bleeding on the cutting edge: A systematic review of anticoagulant and antiplatelet continuation in minor cutaneous surgery. *J Plast Reconstr Aesthet Surg* 71(4):455–467. <https://doi.org/10.1016/j.bjps.2017.11.024>, 2018
72. Lewis SR, Pritchard MW, Schofield-Robinson OJ, Alderson P, Smith AF: Continuation versus discontinuation of antiplatelet therapy for bleeding and ischaemic events in adults undergoing non-cardiac surgery. *Cochrane Database Syst Rev* 7(7):CD012584. <https://doi.org/10.1002/14651858.CD012584.pub2>, 2018
73. Lee CC, Hunter WP, Hajibandeh JT, Peacock ZS: Does the modified frailty Index (mFI-5) predict adverse outcomes in maxillofacial fracture Repair? *J Oral Maxillofac Surg* 80(3):472–480. <https://doi.org/10.1016/j.joms.2021.09.026>, 2022
74. Choi JH, Kang JH, Koh SB, Kim NH, Kho HS: Development of an oral and maxillofacial frailty Index: A preliminary study. *J Oral Rehabil* 47(2):187–195. <https://doi.org/10.1111/joor.12890>, 2020
75. Kubota K, Yamaga E, Ueda K, Inokoshi M, Minakuchi S: Comparison of cardiovascular response between patients on warfarin and hypertensive patients not on warfarin during dental extraction. *Clin Oral Investig* 25(4):2141–2150. <https://doi.org/10.1007/s00784-020-03526-8>, 2021
76. Fayyaz B, Rehman HJ, Minn H: Interpretation of hemoglobin A1C in primary care setting. *J Community Hosp Intern Med Perspect* 9(1):18–21. <https://doi.org/10.1080/20009666.2018.1559432>, 2019 eCollection 2019
77. Sergesketter AR, Geng Y, Shammass RL, Denis GV, Bachelder R, Hollenbeck ST: The association between metabolic derangement and wound complications in elective plastic surgery. *J Surg Res* 278:39–48. <https://doi.org/10.1016/j.jss.2022.03.017>, 2022
78. Hasegawa T, Yanamoto S, Tachibana A, et al: Japanese Study Group of Cooperative Dentistry with Medicine (JCDM). The risk factors associated with postoperative hemorrhage after tooth extraction: A multi-center retrospective study of patients receiving oral antithrombotic therapy. *Oral Maxillofac Surg* 21(4):397–404. <https://doi.org/10.1007/s10006-017-0645-y>, 2017
79. Huang J, Liu J, Shi H, Wu J, Liu J, Pan J: Risk factors for bleeding after dental extractions in patients receiving antithrombotic drugs - a case control study. *J Dent Sci* 17(2):780–786. <https://doi.org/10.1016/j.jds.2021.10.005>, 2022
80. Doganay O, Atalay B, Karadag E, Aga U, Tugrul M: Bleeding frequency of patients taking ticagrelor, aspirin, clopidogrel, and dual antiplatelet therapy after tooth extraction and minor oral surgery. *J Am Dent Assoc* 149(2):132–138. <https://doi.org/10.1016/j.adaj.2017.09.052>, 2018
81. Hua W, Huang Z, Huang Z: Bleeding outcomes after dental extraction in patients under direct-acting oral anticoagulants vs. Vitamin K antagonists: A systematic review and meta-analysis. *Front Pharmacol* 12:702057. <https://doi.org/10.3389/fphar.2021.702057>, 2021 eCollection 2021
82. Costa-Tort J, Schiavo-Di Flaviano V, González-Navarro B, Jané-Salas E, Estrugo-Devesa A, López- López J: Update on the management of anti-coagulated and antiaggregated patients in dental practice: Literature review. *J Clin Exp Dent* 13(9):e948–e956. <https://doi.org/10.4317/jced.58586>, 2021 eCollection 2021
83. Hoda MM, Navaneetham R, Sham ME, Menon S, Kumar V, Archana S: Assessment of postoperative bleeding after dental extractions in patients who are on antiplatelet therapy: A prospective study. *Ann Maxillofac Surg* 11(1):75–79. https://doi.org/10.4103/ams.ams_406_20, 2021
84. Calcia TBB, Oballe HJR, de Oliveira Silva AM, Friedrich SA, Muniz FWMG: Is alteration in single drug anticoagulant/antiplatelet regimen necessary in patients who need minor oral surgery? A systematic review with meta-analysis. *Clin Oral Investig* 25(6):3369–3381. <https://doi.org/10.1007/s00784-021-03882-z>, 2021
85. Kumar A, Rao A, Nimkar A, Mahajani M, Suvvari RK, Bhanot R: Evaluating the need of continuing the antiplatelet drug therapy in patients undergoing minor oral surgical procedures. *J Pharm BioAllied Sci* 13(Suppl 1):S80–S83. https://doi.org/10.4103/jpbs.JPBS_554_20, 2021
86. Rutherford SJ, Glennly AM, Roberts G, Hooper L, Worthington HV: Antibiotic prophylaxis for preventing bacterial endocarditis following dental procedures. *Cochrane Database Syst Rev* 5(5):CD003813. <https://doi.org/10.1002/14651858.CD003813.pub5>, 2022
87. Rahimi- Nedjat RK, Sagheb K, Pabst A, et al: Diabetes and hyperglycemia as risk factors for postoperative outcome in maxillofacial surgery. *J Surg Res* 217:170–176. <https://doi.org/10.1016/j.jss.2017.05.021>, 2017
88. Woodcock T, Barker P, Daniel S, et al: Guidelines for the management of glucocorticoids during the peri-operative period for patients with adrenal insufficiency: Guidelines from the association of anaesthetists, the Royal College of physicians and the Society for endocrinology UK. *Anaesthesia* 75(5):654–663. <https://doi.org/10.1111/anae.14963>, 2020
89. Mouri H, Jo T, Matsui H, Fushimi K, Yasunaga H: Impact of glucocorticoid supplementation on reducing perioperative complications in patients on long- term glucocorticoid medication: A propensity score analysis using a nationwide inpatient database. *Am J Surg* 220(3):648–653. <https://doi.org/10.1016/j.amjsurg.2020.01.051>, 2020
90. Chiarito M, Cao D, Cannata F, et al: Direct oral anticoagulants in addition to antiplatelet therapy for secondary prevention after acute Coronary Syndromes: A systematic review and meta-analysis. *JAMA Cardiol* 3(3):234–241. <https://doi.org/10.1001/jamacardio.2017.5306>, 2018

91. Taylor GA, Oresanya LB, Kling SM, et al: Rethinking the routine: Preoperative laboratory testing among American Society of Anesthesiologists class 1 and 2 patients before low-risk ambulatory surgery in the 2017 National Surgical Quality Improvement Program cohort. *Surgery* 171(2):267–274. <https://doi.org/10.1016/j.surg.2021.07.036>, 2022
92. Huang C, Soleimani J, Herasevich S, et al: Clinical Characteristics, treatment, and outcomes of critically ill patients with COVID-19: A Scoping review. *Mayo Clin Proc* 96(1):183–202. <https://doi.org/10.1016/j.mayocp.2020.10.022>, 2021
93. Duggan E, Chen Y: Glycemic management in the operating Room: Screening, monitoring, oral hypoglycemics, and insulin therapy. *Curr Diab Rep* 19(11):134. <https://doi.org/10.1007/s11892-019-1277-4>, 2019
94. Tran J, Nimmojan T, Saripella A, Tang-Wai DF, Butris N, Kapoor P, Berezin L, Englesakis M, Chung F: Rapid cognitive assessment tools for screening of mild cognitive impairment in the preoperative setting: A systematic review and meta-analysis. *J Clin Anesth* 78:110682. <https://doi.org/10.1016/j.jclinane.2022.110682>, 2022
95. Lim BG, Lee IO: Anesthetic management of geriatric patients. *Korean J Anesthesiol* 73(1):8–29. <https://doi.org/10.4097/kja.19391>, 2020
96. Moon TS, Van de Putte P, De Baerdemaeker L, Schumann R: The obese patient: Facts, fables, and best practices. *Anesth Analg* 132(1):53–64. <https://doi.org/10.1213/ANE.0000000000004772>, 2021
97. Reyes-Gilbert E, Luque-Romero L-G, Bejarano-Avila G, Garcia-Palma A, Rollon-Mayordomo A, Infante-Cossio P: Assessment of pre and post-operative anxiety in patients undergoing ambulatory oral surgery in primary care. *Med Oral Patol Oral Cir Bucal* 22(6):e716–e722. <https://doi.org/10.4317/medoral.21929>, 2017
98. Yoshida K, Kodama Y, Nagai T, Estacio AR: Clinico-statistical survey of oral antimicrobial prophylaxis and surgical site infection regarding ordinary tooth extraction and mandibular wisdom tooth extraction in the dental outpatient clinic. *J Infect Chemother* 27(2):192–197. <https://doi.org/10.1016/j.jiac.2020.08.022>, 2021
99. Bartella AK, Lemmen S, Burnic A, Kloss-Brandstätter A, Kamal M, Breisach T, Hölzle F, Lethaus B: Influence of a strictly perioperative antibiotic prophylaxis vs a prolonged postoperative prophylaxis on surgical site infections in maxillofacial surgery. *Infection* 46(2):225–230. <https://doi.org/10.1007/s15010-017-1110-4>, 2018
100. Braimah RO, Ndukwe KC, Owotade JF, Aregbesola SB: Impact of oral antibiotics on health-related quality of life after mandibular third molar surgery: An observational study. *Niger J Clin Pract* 20(9):1189–1194. <https://doi.org/10.4103/1119-3077.183235>, 2017
101. Yoshikawa H, Yoshida M, Yasaka M, et al: Safety of tooth extraction in patients receiving direct oral anticoagulant treatment versus warfarin: A prospective observation study. *Int J Oral Maxillofac Surg* 48(8):1102–1108. <https://doi.org/10.1016/j.ijom.2019.01.013>, 2019
102. Beaulieu P: Anesthetic implications of recreational drug use. *Can J Anaesth* 64(12):1236–1264. <https://doi.org/10.1007/s12630-017-0975-0>, 2017
103. Rusy DA, Honkanen A, Landrigan-Ossar MF, Chatterjee D, Schwartz LI, Lalwani K, Dollar JR, Clark R, Diaz CD, Deutsch N, Warner DO, Soriano SG: Vaping and E-cigarette use in children and adolescents: Implications on perioperative care from the American Society of Anesthesiologists Committee on pediatric anesthesia, Society for pediatric anesthesia, and American academy of pediatrics section on anesthesiology and pain medicine. *Anesth Analg* 133(3):562–568. <https://doi.org/10.1213/ANE.0000000000005519>, 2021
104. Postoperative bleeding risk of direct oral anticoagulants after oral surgery procedures: A systematic review and meta-analysis. *Int J Oral Maxillofac Surg* 47(7):923–932. <https://doi.org/10.1016/j.ijom.2018.03.016>, 2018
105. Heller ZA, Adlesic Ms EC, Portnof Dmd JE: Implications of electronic cigarettes on the safe administration of sedation and general anesthesia in the outpatient dental setting. *Anesth Prog* 69(2):41–52. <https://doi.org/10.2344/anpr-69-02-16>, 2022
106. Harris DE, Foley EM: Anesthesia implications of patient use of electronic cigarettes. *AANA J* 88(2):135–140, 2020
107. Cinquini C, Marchionni S, Derchi G, Miccoli M, Gabriele M, Barone A: Non-impacted tooth extractions and antibiotic treatment: A RCT study. *Oral Dis* 27(4):1042–1051. <https://doi.org/10.1111/odi.13607>, 2021
108. Filipescu DC, Stefan MG, Valeanu L, Popescu WM: Perioperative management of antiplatelet therapy in noncardiac surgery. *Curr Opin Anaesthesiol* 33(3):454–462. <https://doi.org/10.1097/ACO.0000000000000875>, 2020
109. Douketis JD, Spyropoulos AC, Spencer FA, et al: Perioperative management of antithrombotic therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of chest physicians evidence-based clinical practice guidelines. *Chest* 141(2 Suppl):e326S–e350S. <https://doi.org/10.1378/chest.11-2298>, 2012
110. Fleisher LA, Fleischmann KE, Auerbach AD, et al: 2014 ACC/AHA guideline on perioperative cardiovascular evaluation and management of patients undergoing noncardiac surgery: Executive summary: A report of the American College of cardiology/American heart association task force on practice guidelines. *Circulation* 130(24):2215–2245. <https://doi.org/10.1161/CIR.000000000000105>, 2014
111. Mahmood H, Siddique I, McKechnie A: Antiplatelet drugs: A review of pharmacology and the perioperative management of patients in oral and maxillofacial surgery. *Ann R Coll Surg Engl* 102(1):9–13. <https://doi.org/10.1308/rcsann.2019.0154>, 2020
112. Bridwell RE, Willis GC, Gottlieb M, Koyfman A, Long B: Decompensated hypothyroidism: A review for the emergency clinician. *Am J Emerg Med* 39:207–212. <https://doi.org/10.1016/j.ajem.2020.09.062>, 2021
113. Blech B, Chong BW, Sands KA, et al: Are postprocedural blood pressure goals associated with clinical outcome after mechanical thrombectomy for acute ischemic Stroke? *Neurol* 24(1):44–47. <https://doi.org/10.1097/NRL.0000000000000223>, 2019
114. Goyal N, Tsiygoulis G, Pandhi A, et al: Blood pressure levels post mechanical thrombectomy and outcomes in non-recanalized large vessel occlusion patients. *J Neurointerv Surg* 10(10):925–931. <https://doi.org/10.1136/neurintsurg-2017-013581>, 2018
115. Agache I, Beltran J, Akdis C, et al: Efficacy and safety of treatment with biologicals (benralizumab, dupilumab, mepolizumab, omalizumab and reslizumab) for severe eosinophilic asthma. A systematic review for the EAACI Guidelines - recommendations on the use of biologicals in severe asthma. *Allergy* 75(5):1023–1042. <https://doi.org/10.1111/all.14221>, 2020
116. Chong LY, Pirochchai P, Sharp S, et al: Biologics for chronic rhinosinusitis. *Cochrane Database Syst Rev* 3(3):CD013513. <https://doi.org/10.1002/14651858.CD013513.pub3>, 2021
117. Donovan T, Milan SJ, Wang R, Banchoff E, Bradley P, Crossingham I: Anti-IL-5 therapies for chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 12(12):CD013432. <https://doi.org/10.1002/14651858.CD013432.pub2>, 2020
118. Farne HA, Wilson A, Milan S, Banchoff E, Yang F, Powell CV: Anti-IL-5 therapies for asthma. *Cochrane Database Syst Rev* 7(7):CD010834. <https://doi.org/10.1002/14651858.CD010834.pub4>, 2022
119. Tan CSS, Lee SWH: Warfarin and food, herbal or dietary supplement interactions: A systematic review. *Br J Clin Pharmacol* 87(2):352–374. <https://doi.org/10.1111/bcp.14404>, 2021
120. Agbabiaka TB, Wider B, Watson LK, Goodman C: Concurrent use of prescription drugs and herbal medicinal products in older adults: A systematic review. *Drugs Aging* 34(12):891–905. <https://doi.org/10.1007/s40266-017-0501-7>, 2017
121. Awortwe C, Bruckmueller H, Cascorbi I: Interaction of herbal products with prescribed medications: A systematic review and meta-analysis. *Pharmacol Res* 141:397–408. <https://doi.org/10.1016/j.phrs.2019.01.028>, 2019
122. Ng JY, Munford V, Thakar H: Web-based online resources about adverse interactions or side effects associated with complementary and alternative medicine: A systematic review, summarization and quality assessment. *BMC Med Inform Decis Mak* 20(1):290. <https://doi.org/10.1186/s12911-020-01298-5>, 2020
123. Clark NP, Douketis JD, Hasselblad V, et al: Predictors of perioperative major bleeding in patients who interrupt warfarin for an elective surgery or procedure: Analysis of the BRIDGE trial. *Am Heart J* 195:108–114. <https://doi.org/10.1016/j.ahj.2017.09.015>, 2018

124. Manfredi M, Dave B, Percudani D, et al: World workshop on oral medicine VII: Direct anticoagulant agents management for invasive oral procedures: A systematic review and meta-analysis. *Oral Dis* 25(Suppl 1):157–173. <https://doi.org/10.1111/odi.13086>, 2019
125. Yang S, Shi Q, Liu J, Li J, Xu J: Should oral anticoagulant therapy be continued during dental extraction? A meta-analysis. *BMC Oral Health* 16(1): 81. <https://doi.org/10.1186/s12903-016-0278-9>, 2016
126. Nikolakopoulos I, Spyropoulos AC: Heparin Bridging therapy for patients on chronic oral anticoagulants in periprocedural settings. *Semin Thromb Hemost* 46(1):26–31. <https://doi.org/10.1055/s-0039-1696945>, 2020
127. Shaw JR, Kaplovitch E, Douketis J: Periprocedural management of oral anticoagulation. *Med Clin North Am* 104(4):709–726. <https://doi.org/10.1016/j.mcna.2020.02.005>, 2020
128. Rallo A, Coelho A, Ribeiro M, et al: Effects of electronic cigarettes on oral cavity: A systematic review. *J Evid Based Dent Pract* 19(4):101318. <https://doi.org/10.1016/j.jebdp.2019.04.002>, 2019
129. Skotsimara G, Antonopoulos AS, Oikonomou E, et al: Cardiovascular effects of electronic cigarettes: A systematic review and meta-analysis. *Eur J Prev Cardiol* 26(11):1219–1228. <https://doi.org/10.1177/2047487319832975>, 2019
130. Goniewicz ML, Miller CR, Sutanto E, Li D: How effective are electronic cigarettes for reducing respiratory and cardiovascular risk in smokers? A systematic review. *Harm Reduct J* 17(1):91. <https://doi.org/10.1186/s12954-020-00440-w>, 2020
131. Heller ZA, Ms ECA, Dmd JEP: Implications of electronic cigarettes on the safe administration of sedation and general anesthesia in the outpatient dental setting. *Anesth Prog* 69(2):41–52. <https://doi.org/10.2344/anpr-69-02-16>, 2022
132. Rusy DA, Honkanen A, Landrigan-Ossar MF, et al: Vaping and E-cigarette use in children and adolescents: Implications on perioperative care from the American Society of Anesthesiologists Committee on pediatric anesthesia, Society for pediatric anesthesia, and American academy of pediatrics section on anesthesiology and pain medicine. *Anesth Analg* 133(3):562–568. <https://doi.org/10.1213/ANE.0000000000005519>, 2021
133. Yarows SA, Vornovitsky O, Eber RM, Bisognano JD, Basile J: Canceling dental procedures due to elevated blood pressure: Is it appropriate? *J Am Dent Assoc* 151(4):239–244. <https://doi.org/10.1016/j.adaj.2019.12.010>, 2020
134. Yancey R: Anesthetic management of the hypertensive patient: Part II. *Anesth Prog* 65(3):206–213. <https://doi.org/10.2344/anpr-65-03-17>, 2018
135. Lieblich S: Preoperative evaluation and patient selection for office-based oral surgery anesthesia. *Oral Maxillofac Surg Clin North Am* 30(2):137–144. <https://doi.org/10.1016/j.coms.2018.01.001>, 2018
136. Milic T, Raidoo P, Gebauer D: Antibiotic prophylaxis in oral and maxillofacial surgery: A systematic review. *Br J Oral Maxillofac Surg* 59(6):633–642. <https://doi.org/10.1016/j.bjoms.2020.09.020>, 2021
137. Yarom N, Shapiro CL, Peterson DE, et al: Medication-related osteonecrosis of the jaw: MASCC/ISOO/ASCO clinical practice guideline. *J Clin Oncol* 37(25):2270–2290. <https://doi.org/10.1200/JCO.19.01186>, 2019
138. Govaerts D, Piccart F, Ockerman A, Coropciuc R, Politis C, Jacobs R: Adjuvant therapies for MRONJ: A systematic review. *Bone* 141:115676. <https://doi.org/10.1016/j.bone.2020.115676>, 2020
139. Cavalcante RC, Tomasetti G: Pentoxifylline and tocopherol protocol to treat medication-related osteonecrosis of the jaw: A systematic literature review. *J Craniomaxillofac Surg* 48(11):1080–1086. <https://doi.org/10.1016/j.jcms.2020.09.008>, 2020
140. Duarte NT, Rech BO, Martins IG, Franco JB, Ortega KL: Can children be affected by bisphosphonate-related osteonecrosis of the jaw? A systematic review. *Int J Oral Maxillofac Surg* 49(2):183–191. <https://doi.org/10.1016/j.ijom.2019.08.004>, 2020
141. Vanpoecke J, Verstraete L, Smeets M, Ferri J, Nicot R, Politis C: Medication-related osteonecrosis of the jaw (MRONJ) stage III: Conservative and conservative surgical approaches versus an aggressive surgical intervention: A systematic review. *J Craniomaxillofac Surg* 48(4):435–443. <https://doi.org/10.1016/j.jcms.2020.02.017>, 2020
142. Suryani IR, Ahmadzai I, Shujaat S, Ma H, Jacobs R: Non-antiresorptive drugs associated with the development of medication-related osteonecrosis of the jaw: A systematic review and meta-analysis. *Clin Oral Investig* 26(3):2269–2279. <https://doi.org/10.1007/s00784-021-04331-7>, 2022
143. de Souza Tolentino E, de Castro TF, Michellon FC, et al: Adjuvant therapies in the management of medication-related osteonecrosis of the jaws: Systematic review. *Head Neck* 41(12):4209–4228. <https://doi.org/10.1002/hed.25944>, 2019
144. Moreno-Rabié C, Gaêta-Araujo H, Oliveira-Santos C, Politis C, Jacobs R: Early imaging signs of the use of antiresorptive medication and MRONJ: A systematic review. *Clin Oral Investig* 24(9):2973–2989. <https://doi.org/10.1007/s00784-020-03423-0>, 2020
145. Beaulieu P: Anesthetic implications of recreational drug use. Implications anesthésiques de l’usage de drogues dans un but récréatif. *Can J Anaesth* 64(12):1236–1264. <https://doi.org/10.1007/s12630-017-0975-0>, 2017
146. Ridenour R, Kowalski C, Yadavalli A, et al: Preoperative opioid use is associated with persistent use, Readmission and postoperative complications after arthroscopic knee surgery. *Arthroscopy* 37(5):1567–1572. <https://doi.org/10.1016/j.arthro.2020.12.187>, 2021
147. Lemay F, Baker P, McRobbie H: Electronic cigarettes: A narrative review of the implications for the pediatric anesthesiologist. *Paediatr Anaesth* 30(6):653–659. <https://doi.org/10.1111/pan.13885>, 2020
148. Larach DB, Sahara MJ, As-Sanie S, et al: Patient factors associated with opioid Consumption in the month following major surgery. *Ann Surg* 273(3):507–515. <https://doi.org/10.1097/SLA.0000000000003509>, 2021
149. Myoga Y, Manabe H, Osaki Y: The effects of preoperative alcohol, tobacco, and psychological stress on postoperative complications: A prospective observational study. *BMC Anesthesiol* 21(1):245. <https://doi.org/10.1186/s12871-021-01456-w>, 2021
150. Hilliard PE, Waljee J, Moser S, et al: Prevalence of preoperative opioid use and Characteristics associated with opioid use among patients presenting for surgery. *JAMA Surg* 153(10):929–937. <https://doi.org/10.1001/jamasurg.2018.2102>, 2018
151. Sekhri S, Arora NS, Cottrell H, et al: Probability of opioid prescription Refilling after surgery: Does initial prescription dose matter? *Ann Surg* 268(2):271–276. <https://doi.org/10.1097/SLA.0000000000002308>, 2018
152. Shen L, Wei K, Chen Q, et al: Decreased pain tolerance before surgery and increased postoperative narcotic requirements in abstinent tobacco smokers. *Addict Behav* 78:9–14. <https://doi.org/10.1016/j.addbeh.2017.10.024>, 2018
153. Vadivelu N, Kai AM, Kodumudi V, Sramcik J, Kaye AD: The opioid Crisis: A comprehensive overview. *Curr Pain Headache Rep* 22(3):16. <https://doi.org/10.1007/s11916-018-0670-z>, 2018
154. Beaulieu P: Anesthetic implications of recreational drug use. Implications anesthésiques de l’usage de drogues dans un but récréatif. *Can J Anaesth* 64(12):1236–1264. <https://doi.org/10.1007/s12630-017-0975-0>, 2017
155. Auger N, Low N, Ayoub A, Lo E, Luu TM: Pediatric surgery and future risk of cocaine, opioid, cannabis, and other substance use in women: Longitudinal cohort study. *Drug Alcohol Depend* 226:108902. <https://doi.org/10.1016/j.drugalcdep.2021.108902>, 2021
156. Vadivelu N, Kai AM, Kodumudi V, Sramcik J, Kaye AD: The opioid Crisis: A comprehensive overview. *Curr Pain Headache Rep* 22(3):16. <https://doi.org/10.1007/s11916-018-0670-z>, 2018
157. Mallama CA, Greene C, Alexandridis AA, McAninch JK, Dal Pan G, Meyer T: Patient-reported opioid analgesic use after discharge from surgical procedures: A systematic review. *Pain Med* 23(1):29–44. <https://doi.org/10.1093/pm/pnab244>, 2022
158. Rossow I: Illicit drug use and oral health. *Addiction* 116(11):3235–3242. <https://doi.org/10.1111/add.15360>, 2021
159. Tuli R, Romero SA, Figueroa C, Tay E, Saadat S, Barrios C: Investigating a substance abuse screening in a trauma setting. *Am Surg* 87(10):1606–1611. <https://doi.org/10.1177/00031348211024190>, 2021
160. Schmidt RA, Genois R, Jin J, Vigo D, Rehm J, Rush B: The early impact of COVID-19 on the incidence, prevalence, and severity of alcohol use and other drugs: A systematic review. *Drug Alcohol Depend* 228:109065. <https://doi.org/10.1016/j.drugalcdep.2021.109065>, 2021

161. Wang M, Zeraatkar D, Obeda M, et al: Drug-drug interactions with warfarin: A systematic review and meta-analysis. *Br J Clin Pharmacol* 87(11): 4051–4100. <https://doi.org/10.1111/bcp.14833>, 2021
162. Halladay J, Woock R, El-Khechen H, et al: Patterns of substance use among adolescents: A systematic review. *Drug Alcohol Depend* 216:108222. <https://doi.org/10.1016/j.drugalcdep.2020.108222>, 2020
163. Bahji A, Cheng B, Gray S, Stuart H: Mortality among people with opioid use disorder: A systematic review and meta-analysis. *J Addict Med* 14(4): e118–e132. <https://doi.org/10.1097/ADM.0000000000000606>, 2020
164. Mu G, Wang J, Liu Z, et al: Association between smokeless tobacco use and oral cavity cancer risk in women compared with men: A systematic review and meta-analysis. *BMC Cancer* 21(1):960. <https://doi.org/10.1186/s12885-021-08691-x>, 2021
165. Milling TJ Jr, Ziebell CM: A review of oral anticoagulants, old and new, in major bleeding and the need for urgent surgery. *Trends Cardiovasc Med* 30(2):86–90. <https://doi.org/10.1016/j.tcm.2019.03.004>, 2020
166. Shaw JR, Kaplovitch E, Douketis J: Periprocedural management of oral anticoagulation. *Med Clin North Am* 104(4):709–726. <https://doi.org/10.1016/j.mcna.2020.02.005>, 2020
167. Mahmood H, Siddique I, McKechnie A: Antiplatelet drugs: A review of pharmacology and the perioperative management of patients in oral and maxillofacial surgery. *Ann R Coll Surg Engl* 102(1):9–13. <https://doi.org/10.1308/rcsann.2019.0154>, 2020
168. Milling TJ, Pollack CV: A review of guidelines on anticoagulation reversal across different clinical scenarios - is there a general consensus? *Am J Emerg Med* 38(9):1890–1903. <https://doi.org/10.1016/j.ajem.2020.05.086>, 2020
169. Butler AJ, Eismont FJ: Effects of anticoagulant medication on bone-healing. *JBJS Rev* 9(5):e20.00194. <https://doi.org/10.2106/JBJS.RVW.20.00194>, 2021
170. Martínez-Moreno E, Martínez-López F, Rodríguez-Lozano FJ, Oñate-Sánchez RE: Bleeding complications in anticoagulated and/or antiplatelet-treated patients at the dental office: A retrospective study. *Int J Environ Res Public Health* 18(4):1609. <https://doi.org/10.3390/ijerph18041609>, 2021
171. Motta RHL, Bergamaschi CC, de Andrade NK, et al: Bleeding risk in patients using oral anticoagulants submitted to surgical procedures in dentistry: A systematic review protocol. *BMJ Open* 7(12):e019161. <https://doi.org/10.1136/bmjopen-2017-019161>, 2017
172. Kaplovitch E, Dounaevskaia V: Treatment in the dental practice of the patient receiving anticoagulation therapy. *J Am Dent Assoc* 150(7):602–608. <https://doi.org/10.1016/j.adaj.2019.02.011>, 2019
173. Bensi C, Belli S, Paradiso D, Lomurno G: Postoperative bleeding risk of direct oral anticoagulants after oral surgery procedures: A systematic review and meta-analysis. *Int J Oral Maxillofac Surg* 47(7):923–932. <https://doi.org/10.1016/j.ijom.2018.03.016>, 2018
174. Buchbender M, Schlee N, Kesting MR, Grimm J, Fehlhofer J, Rau A: A prospective comparative study to assess the risk of postoperative bleeding after dental surgery while on medication with direct oral anticoagulants, antiplatelet agents, or vitamin K antagonists. *BMC Oral Health* 21(1):504. <https://doi.org/10.1186/s12903-021-01868-7>, 2021
175. Cocero N, Basso M, Grosso S, Carossa S: Direct oral anticoagulants and medical comorbidities in patients needing dental extractions: Management of the risk of bleeding. *J Oral Maxillofac Surg* 77(3):463–470. <https://doi.org/10.1016/j.joms.2018.09.024>, 2019
176. Josef AP, Garcia NM: Systemic anticoagulation and reversal. *Surg Clin North Am* 102(1):53–63. <https://doi.org/10.1016/j.suc.2021.09.011>, 2022
177. Smilowitz NR, Berger JS: Perioperative cardiovascular risk assessment and management for noncardiac surgery: A review. *JAMA* 324(3):279–290. <https://doi.org/10.1001/jama.2020.7840>, 2020
178. Chen AT, Patel M, Douketis JD: Perioperative management of antithrombotic therapy: A case-based narrative review. *Intern Emerg Med* 17(1):25–35. <https://doi.org/10.1007/s11739-021-02866-x>, 2022
179. Ockerman A, Bornstein MM, Leung YY, Li SKY, Politis C, Jacobs R: Incidence of bleeding after minor oral surgery in patients on dual antiplatelet therapy: A systematic review and meta-analysis. *Int J Oral Maxillofac Surg* 49(1):90–98. <https://doi.org/10.1016/j.ijom.2019.06.002>, 2020
180. Palermo NE, Garg R: Perioperative management of diabetes mellitus: Novel approaches. *Curr Diab Rep* 19(4):14. <https://doi.org/10.1007/s11892-019-1132-7>, 2019
181. Saugel B, Sessler DI: Perioperative blood pressure management. *Anesthesiology* 134(2):250–261. <https://doi.org/10.1097/ALN.00000000000003610>, 2021
182. Raslau D, Bierle DM, Stephenson CR, Mikhail MA, Kebede EB, Mauck KF: Preoperative cardiac risk assessment. *Mayo Clin Proc* 95(5):1064–1079. <https://doi.org/10.1016/j.mayocp.2019.08.013>, 2020
183. Wong D, Tsai PNW, Ip KY, Irwin MG: New antihypertensive medications and clinical implications. *Best Pract Res Clin Anaesthesiol* 32(2):223–235. <https://doi.org/10.1016/j.bpa.2018.06.013>, 2018
184. Kozarek K, Sanders RD, Head D: Perioperative blood pressure in the elderly. *Curr Opin Anaesthesiol* 33(1) <https://doi.org/10.1097/ACO.0000000000000820>, 2020
185. de Marvao A, Alexander D, Bucciarelli-Ducci C, Price S: Heart disease in women: A narrative review. *Anaesthesia* 76(Suppl 4):118–130. <https://doi.org/10.1111/anae.15376>, 2021
186. Diaz KE, Schiano TD: Evaluation and management of Cirrhotic patients undergoing elective surgery. *Curr Gastroenterol Rep* 21(7):32. <https://doi.org/10.1007/s11894-019-0700-y>, 2019
187. Steppan J, Heerdt PM: Preoperative assessment and perioperative management of the patient with pulmonary vascular disease. *Clin Chest Med* 42(1):133–141. <https://doi.org/10.1016/j.ccm.2020.11.013>, 2021
188. Lavigne GJ, Herrero Babiloni A, Beetz G, et al: Critical issues in dental and medical management of obstructive sleep apnea. *J Dent Res* 99(1):26–35. <https://doi.org/10.1177/0022034519885644>, 2020
189. Yarows SA, Vornovitsky O, Eber RM, Bisognano JD, Basile J: Canceling dental procedures due to elevated blood pressure: Is it appropriate? *J Am Dent Assoc* 151(4):239–244. <https://doi.org/10.1016/j.adaj.2019.12.010>, 2020
190. Viderman D, Sarria-Santamera A, Umbetzhonov Y, Ismailova A, Ben-David B: Implementation of evidence-based recommendations to reduce elective surgical case cancellations. *J Healthc Qual Res* 36(2):59–65. <https://doi.org/10.1016/j.jhqr.2020.10.009>, 2021
191. Theissen A, Slim K, Deleuze A, Beaussier M: Risk management in outpatient surgery. *J Visc Surg* 156(Suppl 1):S41–S49. <https://doi.org/10.1016/j.jvisurg.2019.04.005>, 2019
192. Herrick KR, Terrio JM, Herrick C: Medical clearance for Common dental procedures. *Am Fam Physician* 104(5):476–483, 2021
193. Jones A, Wilson G: Can oral surgery be performed safely when COVID-19 status is unknown? *Evid Based Dent* 22(2):74–75. <https://doi.org/10.1038/s41432-021-0176-0>, 2021
194. Stegeman I, Ochodo EA, Guleid F, et al: Routine laboratory testing to determine if a patient has COVID-19. *Cochrane Database Syst Rev* 11(11): CD013787. <https://doi.org/10.1002/14651858.CD013787>, 2020
195. Rao D, Desai A, Kumar E: Congenital heart disease associated with Cleft lip and palate and its impact on surgical treatment planning. *Cleft Palate Craniofac J* 58(2):163–169. <https://doi.org/10.1177/1055665620943082>, 2021