10 Topics in Dentistry and Medicine

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Donovan Caves, DDS
Pauline Reed, MD
Southeastern Virginia Health System

Disclosures

- None
- Southeastern Virginia Health System

Case # 1

- Mr. Mason tells you at the end of his visit that he has 6 days of fever, cough, runny nose and sore throat. He has no drainage from his ears. On physical exam he has a normal ear. What else would you like to know?

Case #1 Differential Diagnosis

- Eustachian tube dysfunction
- Temporo-mandibular dysfunction

Ear Pain

What are other possible causes?

- Teeth grinding (Bruxism)
- Clentching
- Caries (Referred Pain)

Case #2

- Miss Jenkins is 25 y. o. who comes in with complaint that something is wrong with her tongue. It has white patches on it and feels sore. She hasn't been on medications or sick lately.

- Source: medical picturesinfo.com

She wants an antifungal.

- Benign- geographic tongue vs. thrush

Oral Manifestations

- Leukoplakia

Oral Manifestations

- Apthous ulcer

Oral Manifestations

- Lichen Planus

Oral Manifestations

- Cold sores- Herpes Virus type 1

Oral Manifestations

- Coxsackie-Hand, Foot and Mouth Disease

Oral Manifestations-

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Fractured/Broken Teeth

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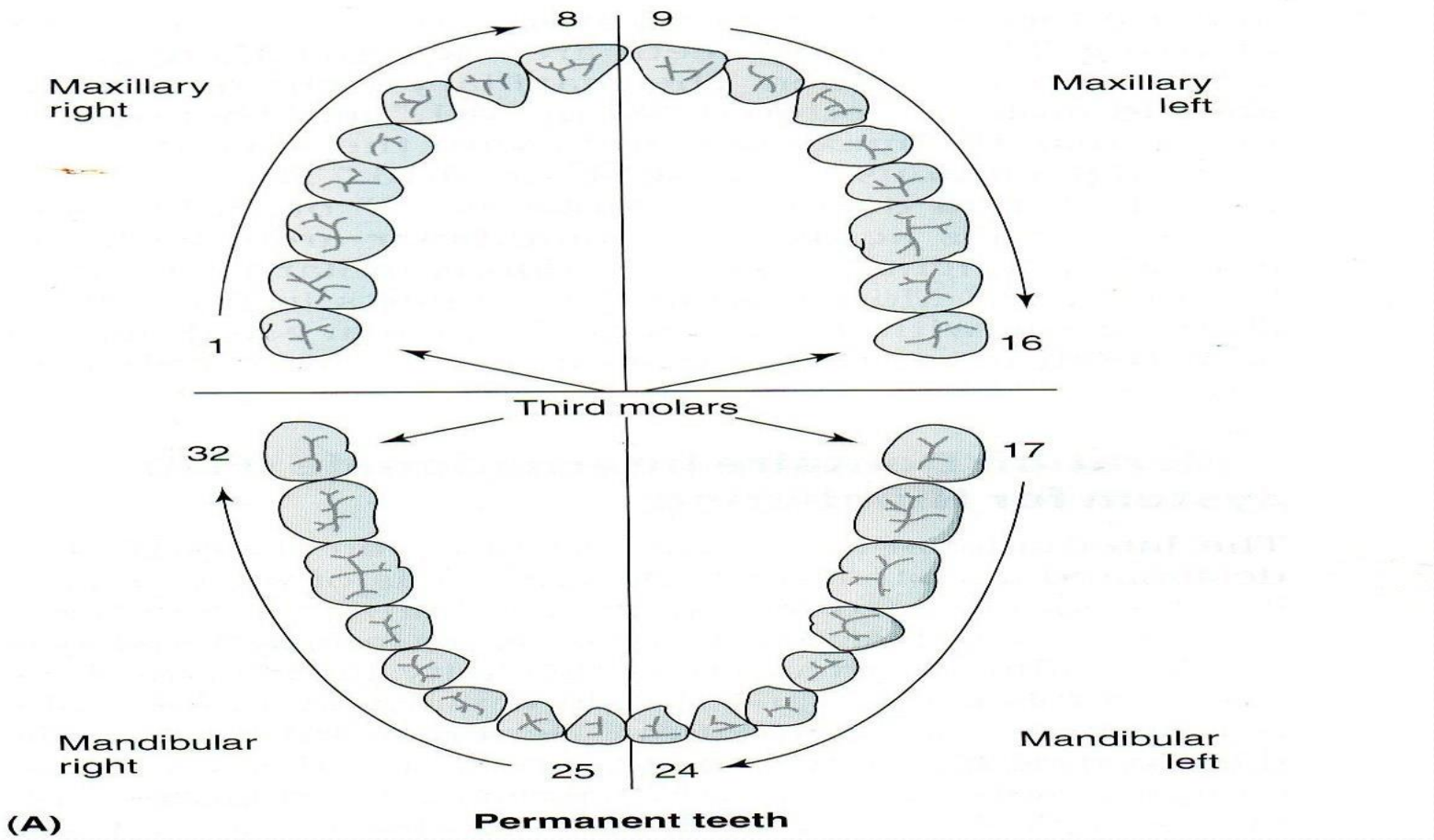
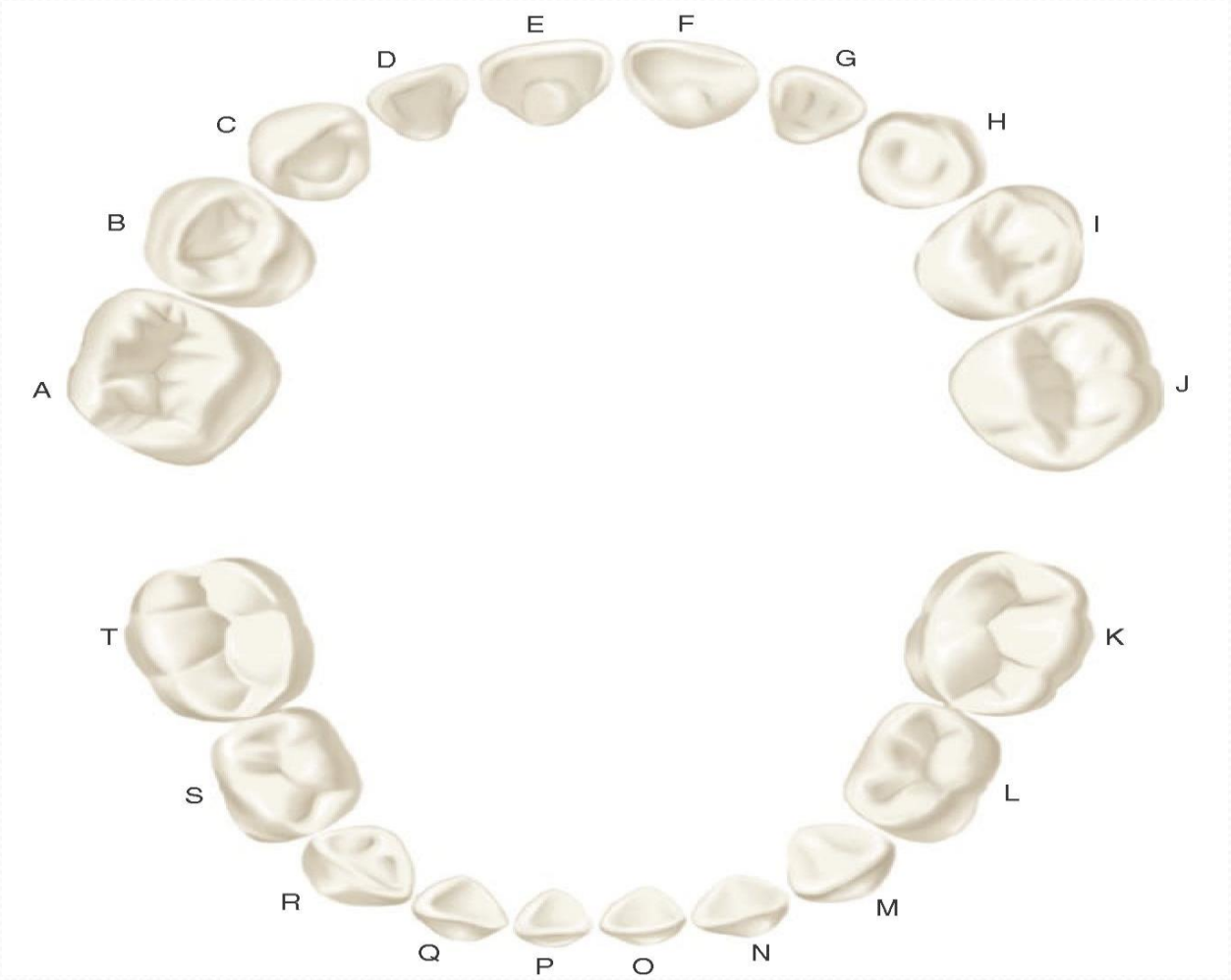
Dental Nomenclature- Permanent



Dental Nomenclature-Primary



Case #3

- Patient presents to the dental clinic for extraction of multiple teeth #3,#4,#5. Patient reports taking normal medications prior to appointment as directed, however BP prior to procedure is 181/91. Concerns?

Blood Pressure for Dental Tx

Blood Pressure Category	Systolic mm Hg	Diastolic mm Hg
Normal	<120	<80
Prehypertension	120–139	80–89
Hypertension (Stage 1)	140–159	90–99
Hypertension (Stage 2)	>160	>100
Hypertensive Crisis	>180	>110

Source: American Heart Association

Case #4

- Patient presents for single tooth extraction #14.
- Medical Hx: Type II Diabetic- takes medication but ran out one month ago per patient
- Social Hx-Smoker

Patient reports not eating due to being nervous.

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Case #4

- Normal Glucose Levels (80-110 mg/dl) per American Academy of Oral Medicine

Signs & Symptoms of Hypoglycemia

- Nervousness or anxiety
- Sweating, chills and clamminess
- Confusion, including delirium Rapid/fast heartbeat Lightheadedness or dizziness
- Hunger and nausea
- Sleepiness Blurred/impaired vision

Signs & Symptoms of Hyperglycemia

- Frequent urination
- Increased thirst
- Breath that smells fruity
- Nausea and vomiting
- Very dry mouth

Case #5

- Mrs. Jewel is on eliquis for atrial fibrillation that was diagnosed 6 months ago. She is needing several tooth extractions and wants to know what to do with her medicine before procedure.

Perioperative thrombotic risk

Risk stratum	Indication for anticoagulant therapy		
	Mechanical heart valve	Atrial fibrillation	VTE
Very high thrombotic risk*	Any mitral valve prosthesis Any caged-ball or tilting disc aortic valve prosthesis Recent (within six months) stroke or transient ischemic attack	CHA_2DS_2-VASc score of ≥6 (or $CHADS_2$ score of 5-6) Recent (within three months) stroke or transient ischemic attack Rheumatic valvular heart disease	Recent (within three months) VTE Severe thrombophilia (eg, deficiency of protein C, protein S, or antithrombin; antiphospholipid antibodies; multiple abnormalities)
High thrombotic risk	Bileaflet aortic valve prosthesis and one or more of the of following risk factors: atrial fibrillation, prior stroke or transient ischemic attack, hypertension, diabetes, congestive heart failure, age >75 years	CHA_2DS_2-VASc score of 4-5 or $CHADS_2$ score of 3-4	VTE within the past 3 to 12 months Nonsevere thrombophilia (eg, heterozygous factor V Leiden or prothrombin gene mutation) Recurrent VTE Active cancer (treated within six months or palliative)
Moderate thrombotic risk	Bileaflet aortic valve prosthesis without atrial fibrillation and no other risk factors for stroke	CHA_2DS_2-VASc score of 2-3 or $CHADS_2$ score of 0-2 (assuming no prior stroke or transient ischemic attack)	VTE >12 months previous and no other risk factors

Refer to UpToDate topics on perioperative anticoagulation management for details.

VTE: venous thromboembolism; $CHADS_2$: congestive heart failure, hypertension, age ≥75 years, diabetes mellitus, and stroke or transient ischemic attack; CHA_2DS_2-VASc: congestive heart failure, hypertension, age ≥75 years (2 points), diabetes mellitus, prior stroke or transient ischemic attack or thromboembolism (2 points), vascular disease (peripheral artery disease, myocardial infarction, or aortic plaque), age 65-74 years, sex category female.

* Very high risk patients may also include those with a prior stroke or transient ischemic attack occurring >3 months before the planned surgery and a CHA_2DS_2-VASc score <6 (or $CHADS_2$ score <5), those with prior thromboembolism during temporary interruption of anticoagulation, or those undergoing certain types of surgery associated with an increased risk for stroke or other thromboembolism (eg, cardiac valve replacement, carotid endarterectomy, major vascular surgery).

Modified from 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 2012; 141(2 Suppl):e326S.

Anticoagulation

- Dental procedures in general are low risk and do not require interruption of anticoagulation.

Anticoagulation

- Warfarin
- Dabigatran
- Rivaroxaban
- Apixaban
- Edoxaban

Recommendations for preoperative and postoperative anticoagulation in patients on a vitamin K antagonist

Indication	Before surgery	After surgery
Venous thromboembolism		
Within first month	IV heparin or SQ LMWH	IV heparin or SQ LMWH
Second/third month	No change*	IV heparin or SQ LMWH
≥3 months	No change*	SQ heparin or LWMH
Arterial thromboembolism		
Recent, within one month	IV heparin or SQ LMWH	IV heparin or SQ LMWH
Prophylaxis (eg, non-valvular AF, mechanical heart valve)	No change*	Resume oral anticoagulation¶

NOTE: Warfarin should be withheld to allow the INR to fall spontaneously to 1.5 to 2 before surgery is performed.

IV: intravenous; SQ: subcutaneous; LMWH: low molecular weight heparin; AF: atrial fibrillation; INR: international normalized ratio.
* If the patient is hospitalized, SQ heparin or LMWH should be administered, but hospitalization is not recommended solely for this purpose.
¶ Can use SQ heparin or SQ LMWH if the surgery carries a high risk of postoperative thromboembolism.

Perioperative management of oral direct thrombin inhibitors and factor Xa inhibitors

Anticoagulant	Renal function and dose	Interval between last dose and procedure NOTE: No anticoagulant is administered the day of the procedure		Resumption after procedure	
		High bleeding risk	Low bleeding risk	High bleeding risk	Low bleeding risk
Dabigatran	CrCl >50 mL/minute Dose 150 mg twice daily	Give last dose three days before procedure (ie, skip four doses on the two days before the procedure)	Give last dose two days before procedure (ie, skip two doses on the day before the procedure)	Resume 48 to 72 hours after surgery (ie, postoperative day 2 to 3)	Resume 24 hours after surgery (ie, postoperative day 1)
	CrCl 30 to 50 mL/minute Dose 150 mg twice daily	Give last dose five days before procedure (ie, skip eight doses on the four days before the procedure)	Give last dose three days before procedure (ie, skip four doses on the two days before the procedure)		
Rivaroxaban	CrCl >50 mL/minute Dose 20 mg once daily	Give last dose three days before procedure (ie, skip two doses on the two days before the procedure)	Give last dose two days before procedure (ie, skip one dose on the day before the procedure)		
	CrCl 30 to 50 mL/minute Dose 15 mg once daily				
Apixaban	CrCl >50 mL/minute Dose 5 mg twice daily	Give last dose three days before procedure (ie, skip four doses on the two days before the procedure)	Give last dose two days before procedure (ie, skip two doses on the day before the procedure)		
	CrCl 30 to 50 mL/minute Dose 2.5 mg twice daily				
Edoxaban	CrCl 50 to 95 mL/minute Dose 60 mg once daily	Give the last dose three days before the procedure (ie, skip two doses on the two days before the procedure)	Give the last dose two days before the procedure (ie, skip one dose on the day before the procedure)		
	CrCl 15 to 50 mL/min Dose 30 mg once daily				

Bleeding risk is determined primarily by the type of surgery; patient comorbidities may also play a role. In patients undergoing neuraxial anesthesia or a very high bleeding risk procedure, a longer period of interruption may be warranted. In many low bleeding risk procedures, the anticoagulant does not need to be interrupted. Bridging anticoagulation may be appropriate preoperatively in patients with a very high thromboembolic risk who require more prolonged interruption of the anticoagulant (eg, for renal insufficiency) and/or postoperatively in patients who are unable to resume the anticoagulant (eg, unable to take oral medication due to intestinal ileus). Refer to the UpToDate topics on perioperative management of patients receiving anticoagulants for further details.

CrCl: creatinine clearance.

Case #6

- Mr. Allen comes in complaining of 3-4 weeks of bad breath. He is not a smoker and reports brushing teeth regularly. What could be a source of his problem?

Bad Breath

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Case #6

- Nasal source: sinusitis, polyps
- Tobacco use
- GI source is temporary from reflux
- Mouth Breathing

Take a good look!

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Questions?