

Course: DNA 113 Chairside Assisting I

Topic: Medical Emergencies

Audience: Adult Learners (Dental Assisting Students)

Time: Two hours (120 Minutes)

Materials: Computer, Projector, PowerPoint

Instructional Objectives:

Upon completion of the lecture, the student should be able to:

1. Define medical emergencies.
2. Describe the elements of preparedness required for the successful management of medical emergencies.
3. Discuss the role of the dental assistant in a medical emergency.
4. Compare and contrast different medical emergencies that dental assistants may encounter in the operator.
5. Appreciate the value of proper documentation of medical emergencies.

References:

Cleveland Clinic. Tardive Dyskinesia. <https://my.clevelandclinic.org/health/diseases/6125-tardive-dyskinesia>

Cleveland Clinic. Tardive Akathisia. <https://my.clevelandclinic.org/health/diseases/23954-akathisia>

Mental Health First Aid. National Council for Mental Wellbeing. <https://www.mentalhealthfirstaid.org/external/2017/09/algee-action-helping-friend-need/>

Malamed, S. (2023). Medical Emergencies in the Dental Office. *Elsevier*. Eighth Edition. ISBN: 978-0-323-77615-8

Robinson, D. (2024). Modern Dental Assisting. *Elsevier*. Fourteenth Edition. ISBN: 978-0-323-82440-8

Yale Medicine. Extrapiramidal Symptoms. Definition. <https://www.yalemedicine.org/clinical-keywords/extrapiramidal-symptoms#:~:text=Definition,%2C%20muscle%20stiffness%2C%20and%20tremors.>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
10 minutes	<p>I. ANTICIPATORY SET</p> <p>A. <u>Introduction</u></p> <p>A medical emergency is a condition or circumstance that requires immediate action for a person who has been injured or has suddenly become ill.</p> <p>A dental assistant, you must be prepared to respond immediately. Your knowledge and skills could mean the difference between life and death for someone.</p> <p>B. <u>Gain Attention/Motivate</u></p> <p>If this was your patient in your operatory chair, would you know how to assist to save their life? If so, would you be able to recognize the medical emergency and know which drugs to hand the dentist?</p> <p>C. <u>Activate Prior Knowledge</u></p> <p>Has anyone had annual training in their office or place of employment?</p> <p>D. <u>Establish Rationale</u></p> <p>By attending today’s lecture, you are taking on an important responsibility to yourself, your dentist, and your patient to know medical emergencies and to aid with them.</p>	<p>Slide #1: Medical Emergency Title</p> <p>Slide #2: Introduction</p> <p>Q: Have you ever been involved in an emergency? If so, what kind of feelings did you experience.</p> <p>A: Answers will vary.</p> <p>Slide #3: Picture of a person giving CPR</p> <p>Slide #4: Have you ever?</p> <p>Q: Has anyone had annual training in their office or place of employment?</p> <p>A: Answers will Vary.</p> <p>Note: Dentists are the number one personnel in the office that can have a medical emergency.</p> <p>Slide #5: Attending’s Today’s Lecture</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
2 minutes	<p data-bbox="358 268 768 296">E. <u>Present Instructional Objectives</u></p> <p data-bbox="358 304 881 331">After today’s lecture, you should be able to:</p> <ol data-bbox="407 340 984 688" style="list-style-type: none"> <li data-bbox="407 340 792 367">1. Define medical emergencies <li data-bbox="407 375 971 478">2. Describe the elements of preparedness required for the successful management of medical emergencies <li data-bbox="407 487 963 548">3. Discuss the role of the dental assistant in a medical emergency <li data-bbox="407 556 984 617">4. Evaluate different medical emergencies that the dental assistant could experience <li data-bbox="407 625 927 688">5. Develop the importance of proper documentation of medical emergencies 	<p data-bbox="1031 268 1382 371">Slide #6: Learning Objectives: Assisting in a Medical Emergency</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
5 minutes	<p>I. Preventing a Medical Emergency</p> <p>A. Know your patient</p> <ol style="list-style-type: none"> 1. Open communication 2. Medical History or Updated Medical History <p>B. Front Desk Responsibility</p> <ol style="list-style-type: none"> 1. Update to the front desk 2. Stress and Apprehension 	<p>Slide #7: Preventing a Medical Emergency</p> <p>Q: What difference can an updated medical history make in an emergency at a dental office?</p> <p>A: Critical to know whether a patient’s health status or medication history has changed, as those things might interfere with dental treatment.</p> <p>Note: Personal Experience – When I was a dental assistant, I had a patient come in to have an impression done of his temporary crown. He never told me that he just started taking antibiotics for an infection. At the end of this appointment, as I was dismissing him, he fell to the ground and EMS was called. We had a complete health history of previous medical conditions. His wife was out of town that day. If he didn’t come to the dentist, he would have died at home.</p>
5 minutes	<p>II. American Society of Anesthesiologist (ASA)</p> <ol style="list-style-type: none"> A. ASA I – Normal and healthy B. ASA II – Moderate systemic diseases C. ASA III – Severe systemic diseases D. ASA IV – Constant threat to life E. ASA V – Moribund 	<p>Slide #8: American Society of Anesthesiologist</p> <p>Note: ASA IV and V we are not likely to see. ASA VI – clinically dead patient and ASA E – emergency operation of any variety can be used to modify ASA I, II, III. Student Handbook.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
2 minutes	<p>III. Emergency Preparedness:</p> <ul style="list-style-type: none"> A. Successful management: <ul style="list-style-type: none"> 1. Preparedness 2. Prompt Recognition 3. Effective Treatment B. Ongoing observation 	<p>Slide #9: Emergency Preparedness</p> <p>Q: Why should roles be assigned in the dental office regarding emergencies?</p> <p>A: In the management of an emergency, the combined efforts of trained persons are more efficient when each person takes on a specific, assigned role. It is the responsibility of the dentist to define these roles.</p>
5 minutes	<p>IV. Emergency Protocol</p> <ul style="list-style-type: none"> A. Assigned Roles <ul style="list-style-type: none"> a. Duties of Team Member #1 <ul style="list-style-type: none"> i. First person on site ii. Provide BLS iii. Remain with patient iv. Alert office staff members b. Duties of Team Member #2 <ul style="list-style-type: none"> i. Bring emergency drug kit, O2, and AED to the emergency site c. Duties of Team Member #3 <ul style="list-style-type: none"> i. Keep Written Record ii. Assist with BLS iii. Prepare emergency drugs for administration iv. Active EMS Systems (Front desk) v. Assist as needed vi. Maintain Record vii. Meet rescue team at building entrance and escort to area (Front Desk) 	<p>Slide #10: Emergency Protocol</p> <p>Note: Make sure to note that 911 call and meeting the rescue team is more of the front desk job. Make sure to note that O2 is checked daily, emergency kit and AED checked weekly.</p>
1 minute	<ul style="list-style-type: none"> B. Emergency telephone numbers <ul style="list-style-type: none"> a. Lists of emergency numbers need to be posted by the phones. b. Due to forgetfulness (811, 9111, 9011) c. Poison Control C. Routine Drills 	<p>Slide #11: Continue Emergency Protocols</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
1 minute	<ul style="list-style-type: none"> a. Training should be current – annually or quarterly b. Routine Mock Emergencies c. Refining the office’s emergency plan 	<p>Note: Trainings should be done in the office with all staff members. Specialized trained personnel can be hired to come in on a routine basis to provide training.</p> <p>Slide #12: Comprehension Question</p> <p>Q: Who in the dental office would most likely oversee calling the emergency medical services?</p> <p>A: Team member 3 – more specifically Front Desk Personnel</p>
4 minutes	<p>V. Recognizing a Medical Emergency</p> <ul style="list-style-type: none"> A. Medical Emergency can occur at any time and any place. B. Symptoms: What a patient tells you <ul style="list-style-type: none"> a. General appearance and gait. C. Signs: What you Observe <ul style="list-style-type: none"> a. Symptoms and Signs <ul style="list-style-type: none"> i. Dizziness ii. Trouble breathing iii. Arm pain iv. Jaw pain v. Sweating vi. Chest pain vii. Changing skin color 	<p>Slide #13: Recognizing a Medical Emergency</p> <p>Note: Sometimes dental assistants do not feel that they need to be prepared because the dentist has been trained; however, all staff members should know how to address an emergency in case they are forced to be the decision makers.</p>
5 Minutes	<p>VI. Emergency Care Standards</p> <ul style="list-style-type: none"> A. Every member of the dental team must be: <ol style="list-style-type: none"> 1. Skilled in taking, assessing, and recording vital signs accurately 2. Certified in basic life support and CPR 3. Certified in the Heimlich maneuver 4. Certified in the operation of the AED 	<p>Slide #14: Emergency Care Standards</p> <p>Q: If someone is choking but they are coughing or gasping sounds, do we give them the Heimlich maneuver?</p> <p>A: No. There is more pressure with them doing it on their own. If the patient stops making noises, then you can assist them.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>VII. Emergency Equipment and Supplies</p> <ul style="list-style-type: none"> A. A standard emergency kit is equipped and organized with emergency supplies. B. Maintenance of the kit consists of: <ul style="list-style-type: none"> a. Routine check of supplies b. Weekly examination for expiration dates on drugs within the emergency kit c. Oxygen tanks 	<p>Slide #15: Emergency Equipment and Supplies</p> <p>Note: Show the class the example of the emergency kit from Moss Free Clinic. PROP</p> <p>Photos: Emergency kit and First Aid drawer at Moss Free Clinic (Clinical Site)</p>
3 minutes	<p>VIII. Oxygen</p> <ul style="list-style-type: none"> A. Most frequently used “drug” in a medical emergency. B. Ideal agent for resuscitation <ul style="list-style-type: none"> a. If the patient is not breathing C. A portable unit with tanks of oxygen <p>IX. Emergency Responses</p> <ul style="list-style-type: none"> A. Responsibility as dental assistant <ul style="list-style-type: none"> a. Recognize signs and symptoms of a significant medical complaint b. Provide appropriate support to the dentist in implementing emergency procedures B. Assessing a Medical Emergency <ul style="list-style-type: none"> a. Unconsciousness b. Altered consciousness <ul style="list-style-type: none"> i. Sudden dizziness or weakness c. Respiratory distress <ul style="list-style-type: none"> i. Difficulty breathing ii. Choking d. Convulsions <ul style="list-style-type: none"> i. Seizures e. Chest pain f. Mental Status <ul style="list-style-type: none"> i. Unusual behavior ii. Confusion 	<p>Slide #16: Oxygen</p> <p>Q: What color is the oxygen tank? What color is the nitrous oxide tank?</p> <p>A: Green – Oxygen and Blue – Nitrous Oxide</p> <p>Photo: Oxygen and Nitrous location at Moss Free Clinic (Clinical Site)</p>
5 minutes		<p>Slide #17: Emergency Responses</p> <p>Q: When do most emergencies in the dental office occur?</p> <p>A: During or after administration of local anesthetic.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>X. Common Medical Emergencies Experienced in the Dental Office:</p> <p>A. Syncope</p> <ol style="list-style-type: none"> a. Known as “Fainting” b. Most common medical emergency in the dental office c. Imbalance in the distribution of blood to the brain and to the larger vessels within the body. d. Psychological factors 	<p>Slide #18: Common medical emergencies experienced in the dental office.</p> <p>Q: What are some psychological factors that you think might contribute to a patient experiencing syncope?</p> <p>A: Stress, Apprehension, Fear, Sight of blood, Certain instruments, remaining in the same position, confined environments, skipping a meal, experiencing fatigue, experiencing exhaustion</p>
5 minutes	<p>B. Management of Vasodepressor Syncope</p> <ol style="list-style-type: none"> a. Assess consciousness b. Activate office emergency system c. Position patient supine with feet slight elevated d. Assess circulation, airways, breathing e. Definitive Care: <ol style="list-style-type: none"> i. Administer O2 ii. Monitor Vital Signs iii. Administer Aromatic Ammonia Vaporole and/or sugar iv. Atropine – Bradycardia v. Postpone further treatment vi. Delayed Recovery – 911 vii. Determine precipitating factor – Medical Consult 	<p>Slide #19: Management of Vasodepressor Syncope</p> <p>Note: Case Report – Our daughter is a paramedic and just texted me about transport that they were called to a dental office. By all accounts, it appeared to be syncope, but she reported that she had never seen someone looking so gray. Male, teenager, lacking sleep and food intake, it happens.</p>
3 minutes	<p>C. Postural Hypotension</p> <ol style="list-style-type: none"> a. Orthostatic Hypotension b. Altered consciousness may lead loss of consciousness c. Occurs when patient assumes an upright position too quickly 	<p>Slide #20: Postural Hypotension</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
5 minutes	<ul style="list-style-type: none"> d. Insufficient blood flow to the brain and occurs after a sudden change in positioning e. Very brief, lasting only seconds to minutes <p>D. Management of Postural Hypotension</p> <ul style="list-style-type: none"> a. Assess consciousness b. Activate office emergency system c. Position patient supine with the feet slightly elevate d. Assess circulation, airway, and breathing e. Definitive Care <ul style="list-style-type: none"> i. Administer O2 ii. Monitor Vital Signs iii. Patient Recover – Slowly reposition chair iv. Delayed Recover – 911 v. Continue BLS as needed vi. Discharge patient – Medical Consult 	<p>Slide #21: Postural Hypotension</p> <p>Note: Typically, when dismissing a patient, a responsible adult may be defined as a person with a vested interest in the health and safety of the patient.</p>
1 minute		<p>Slide #22: Comprehension Question</p> <p>Q: What is the major difference between Syncope and Postural Hypotension?</p> <p>A: Syncope is due to psychological factors. Postural Hypotension is due to patients assuming upright position too quickly.</p>
3 Minutes	<p>E. Angina</p> <ul style="list-style-type: none"> a. Severe Chest Pain <ul style="list-style-type: none"> a. Heart muscle is deprived of adequate oxygen b. Does NOT lead to death or permanent heart damage c. Last 3 to 8 minutes d. Patient will carry Nitroglycerin – History 	<p>Slide #23: Angina</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
5 minutes	<p>F. Management of Angina</p> <ol style="list-style-type: none"> a. Recognize Problem b. Discontinue Dental Treatment c. Activate Office Emergency Team d. Position patient comfortably e. Assess Airway, Breathing, and Circulation f. Monitor and record Vital Signs g. Provide Definitive Management h. History of Angina Present <ol style="list-style-type: none"> i. Administer Nitroglycerin and O2 ii. Pain does not resolve – Aspirin i. No history of Angina <ol style="list-style-type: none"> i. Activate EMS, STAT ii. Administer O2 and Nitroglycerin iii. Monitor and Record Vital Signs 	<p>Slide #24-25: Management of Angina</p> <p>Q: Why do you think we would want to position the patient comfortably instead of laying the patient in supine position?</p> <p>A: If the patient was laid in a supine position, it could make the patient feel like they cannot breathe on top of chest pains.</p>
2 minutes	<p>G. Cerebrovascular Accident</p> <ol style="list-style-type: none"> a) Commonly known as Stroke b) Interruption of blood flow to the brain c) Damage can occur within the brain d) Predisposing conditions <ol style="list-style-type: none"> a. Arteriosclerosis b. Heart Disease c. Uncontrolled High Blood pressure 	
5 minutes	<p>H. Management of Cerebrovascular Accident</p> <ol style="list-style-type: none"> a. Recognize problem b. Discontinue Dental Treatment c. Activate office emergency team d. Position patient comfortably e. Assess and perform BLS as needed f. Provide Definitive management <ol style="list-style-type: none"> a. Activate 911 b. Monitor vital signs c. Manage Signs and Symptoms d. Blood pressure elevated – place patient in semi-fowler position e. Administer O2 f. Do NOT administer CNS depressants g. Hospitalization for all cases 	<p>Slide #26-28: Cerebrovascular Accident</p> <p>NOTE: Picture – If a Stroke Happens, Act F.A.S.T. which explains each sign/symptom to look for.</p> <p>Photo: Slide #28 Semi-Fowler Position</p> <p>NOTE: Slide #29 is a video of FAST for recognizing stroke</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>I. Hyperventilation</p> <ul style="list-style-type: none"> a. Initiated by Stress and Anxiety b. Increase in the frequency or depth of respiration c. Too much oxygen d. Conscious 	<p>Slide #30: Hyperventilation</p> <p>Note: Patient is extremely anxious or apprehensive before undergoing dental treatment. To prevent or reduce, dental assistants should always be alert and be prepared to help the patient deal with severe apprehension in a positive manner.</p> <p>Q: Why would we not give a patient that is hyperventilating oxygen?</p>
5 Minutes	<p>J. Management of Hyperventilation</p> <ul style="list-style-type: none"> a. Recognize problem <ul style="list-style-type: none"> a. Rapid, deep, uncontrolled breathing b. Position patient comfortably <ul style="list-style-type: none"> a. Usually upright c. Basic life support as needed d. Definitive Care: <ul style="list-style-type: none"> a. Remove dental materials from patient’s mouth b. Calm patient c. Correct respiratory alkalosis d. Initiate drug management as needed e. Dental care can continue if both doctor and patient agree f. Discharge patient 	<p>A: The patient is already receiving too much oxygen.</p> <p>Slide #31: Management of Hyperventilation</p> <p>Note: Patient does not need oxygen. Patients need more CO₂. Respiratory alkalosis – blood pH rises.</p>
3 Minutes	<p>K. Asthma Attack</p> <ul style="list-style-type: none"> a. Pulmonary disorder with sudden onset b. Patient’s airway narrows c. Allergic reaction, severe emotional stress, or respiratory infection could cause an asthma attack d. Patient’s Inhaler 	<p>Slide #32: Asthma Attack</p> <p>Note: Difficulty in breathing, coughing, and a wheezing sound. Patient brings inhaler with them to their appointment and it’s out on the counter.</p>
5 Minutes	<p>L. Management of Asthma Attack</p> <ul style="list-style-type: none"> a. Recognize problem <ul style="list-style-type: none"> i. Respiratory distress ii. Wheezing b. Discontinue dental treatment c. Activate office emergency team 	<p>Slide #33: Management of Asthma Attack</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
1 Minute	<ul style="list-style-type: none"> d. Position patient comfortably <ul style="list-style-type: none"> i. Usually upright e. Perform BLS if needed f. Definitive Management: <ul style="list-style-type: none"> i. Administrator O2 ii. Administer bronchodilator iii. Episode terminated <ul style="list-style-type: none"> 1. Dental Care may continue 2. Discharge patient iv. Episode continues <ul style="list-style-type: none"> 1. Activate EMS 2. Administer parenteral drugs 3. Hospitalize or discharge patient 	<p>Slide #34: Comprehension Question</p> <p>Q: What is the medical term for stroke?</p> <p>A: Cerebrovascular accident</p>
2 minutes	<p>M. Acute Myocardial Infarction</p> <ul style="list-style-type: none"> a. Known as Heart Attack b. Lack of oxygen supply to the muscles of the heart causing damage c. Dental team must be swift and cautious, untreated can lead to death 	<p>Slide #35: Acute Myocardial Infarction</p>
5 minutes	<p>N. Management of Acute Myocardial Infarction</p> <ul style="list-style-type: none"> a. Recognize problem <ul style="list-style-type: none"> i. Chest pain, no history of angina b. Discontinue dental treatment c. Activate office emergency team d. Position patient comfortably e. Assess airway, breathing, and circulation f. Definitive management: <ul style="list-style-type: none"> i. Monitor and record vital signs ii. No history of Angina 	<p>Slide #36-37: Management of Acute Myocardial Infarction</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
5 Minutes	<ul style="list-style-type: none"> iii. Activate EMS STAT iv. Administer nitroglycerin v. Administer aspirin vi. Manage pain (opioids) vii. Prepare to manage complications viii. EMS stabilize and transfer to hospital emergency department <p>O. Allergic Reaction</p> <ul style="list-style-type: none"> a. Referred to Hypersensitivity b. Altered state of reactivity that occurs in body tissues in response to specific antigens c. Antigens cause an immune response through the production of antibodies d. Antigens can trigger an allergic state that is known as an allergen e. Speed of Symptoms f. Severity of the Reaction g. Localized: <ul style="list-style-type: none"> i. Slow ii. Mild Symptoms h. Anaphylaxis <ul style="list-style-type: none"> i. Fast ii. Death 	<p>Slide #38: Allergic Reaction</p> <p>Note: Mild symptoms include itching, erythema, and hives.</p> <p>Note: Death within a few minutes.</p>
5 Minutes	<p>P. Management of Allergic Reaction</p> <ul style="list-style-type: none"> a. Generalized anaphylaxis <ul style="list-style-type: none"> a. Recognize problem <ul style="list-style-type: none"> i. Erythema, wheezing, hypotension, loss of consciousness b. Discontinue Dental Treatment c. Activate office emergency team d. Position patient supine with feet elevated slightly e. BLS as needed f. Definitive management <ul style="list-style-type: none"> i. EMS 911 ii. Administer Epinephrine iii. Administrator O2 iv. Monitor Vital signs 	<p>Slide #39: Management of Allergic Reaction</p>

TIME	Lesson Content	NOTES – MEDIA – Q/A
2 Minutes	<p style="text-align: center;">v. Stabilization and transport of patients</p> <p>Q. Epileptic Seizure</p> <ul style="list-style-type: none"> a. Neurologic Disorder b. Recurrent episodes of Seizures c. Controlled with medication d. Generalized and Focal 	<p>Slide #40: Epileptic Seizure</p>
5 Minutes	<p>R. Management of Epileptic Seizures</p> <ul style="list-style-type: none"> a. Prodromal Phase – Aura b. Discontinue Dental Treatment c. Ictal Phase d. Activate Office Emergency Team e. Position patient – Supine, feet elevated f. EMS 911 g. Assess and perform BLS – if needed h. Definitive Care i. Protecting the patient from injury j. IV or IM anticonvulsant (Midazolam, Lorazepam) k. Administer 50% dextrose solution 	<p>Slide #41: Management of Epileptic Seizure</p>
5 Minutes	<p>S. Diabetes Mellitus</p> <ul style="list-style-type: none"> a. Metabolic disorder from disturbances in the body’s normal insulin mechanism b. Type 1 diabetes mellitus c. Type 2 diabetes mellitus d. Hyperglycemia e. Hypoglycemia 	<p>Slide #42: Diabetes Mellitus</p> <p>Note: Type 1 – patient becomes insulin dependent. Type -2 patients manage a proper diet and take medication, and/or insulin.</p> <p>Note: Hyperglycemia – abnormal increase in the glucose (sugar). Untreated diabetic ketoacidosis -> diabetic coma. Hypoglycemia – abnormal decrease in the glucose level. Skipping meals, taking too much insulin without adequate food intake, exercising excessively without</p>

TIME	Lesson Content	NOTES – MEDIA – Q/A
5 minutes	<p>T. Management of Diabetes Mellitus</p> <p>a. Hyperglycemia – Unconscious Patient</p> <ol style="list-style-type: none"> a. Recognize Problem b. Discontinue dental treatment c. Activate office emergency team d. Position patient in supine position with feet elevated e. Assess and perform BLS if needed f. Provide definitive management if needed g. Summon EMS 911 h. Establish an IV infusion i. Administrator O2 j. Transport to hospital 	<p>adjustment of the insulin and food intake.</p> <p>Slide #43: Management of Hyperglycemia – unconscious patient</p>
5 minutes	<p>b. Hypoglycemia – Conscious Patient</p> <ol style="list-style-type: none"> a. Recognize problem b. Discontinue dental treatment c. Activate office emergency team d. Position patient comfortably e. BLS as needed f. Definitive <ol style="list-style-type: none"> i. Administer oral carbohydrates ii. Unsuccessful – EMS 911 iii. Successful <ol style="list-style-type: none"> 1. Monitor Patient 2. Discharge to the party responsible 	<p>Slide #44: Management of Hypoglycemia – Conscious patient</p> <p>Note: Oral carbohydrates can be icing, orange juice, soft drinks, candy bar. Insta-Glucose is a gel and tablet. Blood sugar should be rechecked for 10 to 15 minutes.</p>
5 minutes	<p>c. Hypoglycemia – Unconscious Patient</p> <ol style="list-style-type: none"> a. Recognize problem b. Discontinue dental treatment c. Activate office emergency team d. Position patient in supine position with feet elevated e. BLS if needed f. Definitive <ol style="list-style-type: none"> i. Summon EMS 911 ii. 50% dextrose solution IV or Glucagon IV or IM iii. Monitor and record vital signs every 5 minutes iv. Administrator O2 v. Allow patients to recover 	<p>Slide #45: Hypoglycemia – Unconscious Patient</p>

TIME	Lesson Content	NOTES – MEDIA – Q/A
1 minute		<p>Slide #46: Comprehension Question</p> <p>Q: What type of allergic reaction can be life threatening?</p> <p>A: Anaphylaxis</p>
2 Minutes	<p>U. Extrapramidal Reactions</p> <ol style="list-style-type: none"> a. Side Effects that occur due to the use of certain medications, antipsychotic drugs. b. Affects the motor system c. Signs and symptoms d. Tardive Akathisia e. Tardive Dyskinesia f. Treatment – IV Diphenhydramine (Benadryl) 	<p>Slide #47: Extrapramidal</p> <p>Note: Involuntary movements, muscle stiffness, and tremors.</p> <p>Note: Tardive Akathisia and dyskinesia are an inability to remain physically still.</p>
5 minutes		<p>Video: Acute Dystonic Reaction</p>
2 Minutes	<p>V. Acute Adrenocortical Insufficiency</p> <ol style="list-style-type: none"> a. Life-threatening b. Adrenal glands do not produce enough cortisol hormones. c. Signs and Symptoms 	<p>Slide #48: Acute Adrenocortical Insufficiency</p> <p>Note: History of current or recent long-term steroid use, mental confusion, nausea and vomiting, abdominal pain, and hypotension.</p>
5 Minutes	<p>W. Management of Acute Adrenocortical Insufficiency</p> <ol style="list-style-type: none"> a. Position patient comfortably – conscious and supine with feet slightly elevated if unconscious or symptomatic b. Provide BLS if needed c. Definitive care: <ol style="list-style-type: none"> a. Conscious Patient <ol style="list-style-type: none"> i. Monitor vital signs ii. Summon EMS 911 iii. Emergency kit and O2 iv. Administer glucocorticosteriod 	<p>Slide #49-50: Conscious and unconscious patient management</p>

TIME	Lesson Content	NOTES – MEDIA – Q/A
5 Minutes	<ul style="list-style-type: none"> v. Provide O2 as needed b. Unconscious Patient <ul style="list-style-type: none"> i. Summon EMS 911 ii. Provide O2 iii. Provide glucocorticosteriod iv. Transfer to hospital <p>XI. Mental Health First Aid</p> <ul style="list-style-type: none"> a. Teaching you how to assist and support others who may be experiencing mental health or substance uses challenge. b. ALGEE: The Action Plan <ul style="list-style-type: none"> a. Assess – for risk of suicide or harm b. Listen non-judgmentally c. Give reassurance and information d. Encourage appropriate professional help e. Encourage self-help and other support strategies. c. 988 Suicide and Crisis Lifeline <ul style="list-style-type: none"> a. Call or text 988 to connect with a trained crisis counselor b. Chat online with a trained crisis counselor d. https://alison.com/tag/mental-health#google_vignette 	<p>Slide #51: Mental Health First Aid.</p> <p>Picture: ALGEE: The Action Plan</p> <p>Note: Alison Free Online Mental Health Courses for healthcare providers.</p>
2 Minutes	<p>XII. Documentation of an emergency</p> <ul style="list-style-type: none"> a. Full documentation of the details of an emergency is essential <ul style="list-style-type: none"> a. Explain exactly what happened b. Indicate the treatment provided c. Describe the patient’s condition at the time he or she left the office 	<p>Slide #52: Documentation of an emergency</p> <p>Note: It is always proper protocol to follow up with the family either on the same day or next day. The information provided during that phone call needs to be documented as well.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
1 minute	<p>SUMMARY: Today’s lecture covered the fundamentals of medical emergencies in dental settings. We began by defining what constitutes a medical emergency and explored the importance of being properly prepared, including having the right equipment, emergency protocols, and trained team members. The role of the dental assistant was emphasized, particularly in recognizing signs and symptoms, responding quickly, and supporting the dental team during emergencies. We also reviewed various types of emergencies and discussed how each should be managed differently. Finally, we highlighted the importance of thorough and accurate documentation following an emergency to ensure legal protection and continuity of patient care.</p>	<p>Slide #53: SUMMARY</p> <p>Q: Do you feel confident after today’s lecture that you will be able to handle a medical emergency, if it does happen?</p> <p>A: Answers will vary.</p> <p>Note: You will be doing mock medical emergencies as skill evaluations in clinic. We will give you a random medical emergency and you will need to tell us how to manage it.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
15 minutes	<p>CRITICAL THINKING ACTIVITY:</p> <ol style="list-style-type: none"> <li data-bbox="380 415 987 625">1. You are escorting a patient to the treatment areas and notice that she appears flushed and is sweating. You take her vital signs and note a rapid heart rate and a decrease in her blood pressure. What warning sign could this represent regarding a medical emergency? <li data-bbox="380 663 987 730">2. How would the dental team respond to the patient described in question 1? <li data-bbox="380 806 987 982">3. The dentist has just finished administering local anesthesia when a patient complains of shortness of breath and “not feeling well.” What medical emergency would you suspect, and how should the dental team respond? <li data-bbox="380 1020 987 1087">4. What should be kept available in the dental office for a patient with hypoglycemia? <li data-bbox="380 1163 987 1230">5. Why would you not place anything in a patient’s mouth during a grand mal seizure? 	<p>Note: Students will join teams to answer the following questions. We will discuss what the groups found. Group 1 will need to answer their question before Group 2. Will provide team work just like in real-life medical emergencies.</p> <p>Group 1: Three Students</p> <p>Group 2: Two Students</p> <p>Group 3: Three Students</p> <p>Group 4: Two Students</p> <p>Group 5: Two Students</p> <p>A:</p> <p>1 – Syncope.</p> <p>2 – Patient Supine, Administer Ammonia Vaporole or Sugar – depending on condition.</p> <p>3 – Allergic Reaction – Supine, Epinephrine, EMS.</p> <p>4 – Icing, Orange Juice, Soft Drinks, Candy Bar, or Insta-Glucose Gel or Tablet.</p> <p>5 – Your fingers could be bitten. Don’t put any fingers close to a patient’s oral cavity having a seizure.</p>

Test Items

Objective #1: Define medical emergencies

Test Item #1: A medical emergency is a condition or circumstance that requires immediate action for a person who has which of the following?

- a. Injured or has suddenly become ill
- b. Looking for a new dentist
- c. Sore from a toothache
- d. Feeling slightly tired after a long day of work

Objective #2: Describe the elements of preparedness required for the successful management of medical emergencies.

Test Item #2: Because a medical emergency can happen at any time, is it important for the dental assistant to know which of the following?

- a. Check the patient's pulse every 15 minutes.
- b. Be alert and continuously observe the patient to watch for problems.
- c. Check the patient's blood pressure throughout the procedure.
- d. Put the emergency kit out on the patient treatment counter prior to the appointment.

Objective #3: Discuss the role of the dental assistant in a medical emergency

Test Item #3: The dental assistant's responsibility in a medical emergency is which of the following?

- a. Recognize the symptoms and signs of a significant medical complaint.
- b. Provide appropriate support in implementing emergency procedures.
- c. Diagnose a specific condition or emergency
- d. Both A and B

Objective #4: Compare and contrast different medical emergencies that dental assistants may encounter in the operatory.

Test Item #4: 20-year-old adult comes into the dental office to have a couple fillings done. You, the dental assistant, sit the patient and go get the dentist. The dentist comes in and lets the patient know she is going to numb the patient. The dentist picks up the local anesthetic syringe

and goes to numb the patient. The patient loses consciousness. Did the dental assistant handle this appointment in an appropriate way? Explain your answer in 3-4 sentences.

Objective #5. Appreciate the value of proper documentation of medical emergencies.

Test Item #5: In one paragraph (3-4 sentences), indicate the appreciation of documentation and information details that should be provided after a medical emergency happens.

Correct Answer Key:

1. A

2. B

3. D

4. The dental assistant did not handle the patients appointment in an appropriate way. The dental assistant did not take a thorough medical/dental history update and vital signs. While taking the medical/dental history, patient rapport should have indicated that the patient was nervous or afraid of today's appointment. At that point, the dental assistant should have asked the patient about what specifics in general and should have communicated this with the dentist.

5. As a dental assistant, I would appreciate a comprehensive clinical note explaining exactly what happened, indicating the treatment provided, and describing the patient's condition at the time he or she left the office. The dental assistant should find out if a family member was reached out to and provided information about where the patient has been transferred to. In addition, the dental assistant should make sure that the dentist does not need to add anything else to the note. The next day, the dental assistant should follow up with the patient and document additional notes if any need to be noted.