Course Syllabus
Wayne County Community College District
DEN 112 Medical and Dental Emergencies

CREDIT HOURS: 2.00

CONTACT HOURS: 30.00

COURSE DESCRIPTION:

Prereq: Program Admission
This course familiarizes the student with common medical emergencies in the dental office. Preventive measures and management of these emergencies will be reviewed. Additionally, information on the basic physiology and pathophysiology occurring with common medical emergencies as well as variations in clinical signs will be presented.

EXPECTED COMPETENCIES

Upon completion of the course the student will:
1. Have an understanding of common medical questionnaire questions and their significance to the dental professional
2. Know "normal values" and variations for blood pressure, pulse, and respiration
3. Have an understanding of medical conditions that require subacute bacterial endocarditic premedication before dental treatment
4. Understand the general physical appearance of a healthy individual and common abnormalities that will present themselves with the dental patient
5. Understand their legal and moral responsibility in treating the medical emergency
6. Know when the need arises for medical consultations and how to professionally discuss a patient's medical condition with the physician
7. Know the appropriate format for the dialogue history as it relates to positive answers on the medical history questionnaire
8. Understand when a treatment should be deferred and what variations of treatment should occur, after medical consultations
9. Differentiate and demonstrate appropriate responses to the following emergency situations:
   9.1 Unconsciousness
      9.1.1 Syncope
      9.1.2 Postural hypotension
      9.1.3 Acute Adrenal Insufficiency
   9.2 Respiratory distress
      9.2.1 Airway obstruction
      9.2.2 Hyperventilation
      9.2.3 Asthma
      9.2.4 Allergic reactions
   9.3 Altered consciousness
      9.3.1 Diabetes mellitus: insulin shock and diabetic coma
      9.3.2 Cerebrovascular accident
      9.4 Seizures
      9.4.1 Generalized tonic clonic
      9.4.2 Generalized absence
   9.5 Drug-related emergencies
      9.5.1 Drug overdose
      9.5.2 Anesthetic overdose
      9.5.3 Epinephrine overdose
      9.6 Chest pain and cardiac arrest
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9.6.1 Angina
9.6.2 Acute myocardial infarction
9.6.3 Cardiac arrest
9.6.4 Congestive heart failure
9.7 Others
9.7.1 Hemorrhage
9.7.2 Shock
9.7.3 Burns
9.7.4 Foreign body in the eye
9.7.5 Chemical solution in the eye
9.7.6 Dislocated jaw
9.7.7 Broken instrument
9.7.8 Avulsed tooth
9.8 For any emergency situation that should occur:
9.8.1 Recognize that an emergency situation exists.
9.8.2 Discuss the general considerations.
9.8.3 List / evaluate predisposing factors.
9.8.4 Discuss / demonstrate possible prevention strategies.
9.8.5 Generate related dental therapy considerations and modify treatment as required.
9.8.6 Recognize signs and symptoms.
9.8.7 Describe and effectively evaluate clinical manifestations.
9.8.8 Differentiate / demonstrate effective management and treatment.
9.8.9 Identify what medications, if any, the dosage, and the route of administration are indicated.
9.8.10 Differentiate / demonstrate differential diagnosis.
10. Know the clinical picture with manifestation of any of the above medical emergencies
11. Understand the pathophysiology involved in all of the above medical emergencies to better understand the treatment and clinical picture
12. Know the complete sequence in management of all of the above medical emergencies, including the appropriate pharmacologic management
13. Have an understanding of the basic physiology of allergic reactions and the chemical mediators
14. Know how to recognize common medical emergencies in the dental office in mock emergencies situations with a full understanding of treatment and what is occurring athophysiological
15. An understanding of Basic CPR and patient assessment in an emergency situation is required
16. Understand and relate medical emergencies and changes that have occurred to the body systems
17. Describe significant emergency preventive measures:
17.1 Differentiate the goals or pretreatment physical and psychological evaluation of the patient
17.2 For each question on the medical and dental histories, develop follow-up questions to assess the patient’s risk of an emergency or need for treatment modification
17.3 Discuss the relationship of various vital signs values to potential emergency situations
17.4 Describe the methods for evaluating patients’ anxiety levels and methods to reduce patient anxiety
17.5 Relate ASA classifications to potential medical emergencies
18. Describe activities and equipment needed to prepare for dental office emergencies
18.1 Maintain current CPR certification
18.2 Discuss various aspects of an adequate emergency kit and emergency equipment
18.2.1 List items which might be considered “critical” or “secondary”
18.2.2 Demonstrate an awareness of other drugs and types of equipment which could be included in an emergency kit
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18.2.3 Differentiate the use of various drugs and equipment which might be found in the emergency kit
18.2.4 Describe and demonstrate effective methods for drawing and presenting drugs
18.2.5 Describe and demonstrate effective methods for utilizing and delivering
18.2.6 Describe effective method for utilizing an automatic external defibrillator (AED)
18.2.7 Describe and demonstrate team assignments in response to emergency situations
19. Describe the medicolegal implications of medical emergencies
19.1 Define and discuss:
19.1.1 Standard of care
19.1.2 Duty to act
19.1.3 Consent
19.1.4 Abandonment
19.1.5 Negligence
19.1.6 Four elements of a negligent tort

ASSESSMENT METHODS

Student performance may be assessed by examination, quizzes, case studies, oral reports, group discussion, written reports or presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE

90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E