

MA-1321: MEDICAL OFFICE LABORATORY PROCEDURES

Cuyahoga Community College

Viewing: MA-1321 : Medical Office Laboratory Procedures

Board of Trustees:

2017-03-30

Academic Term:

Spring 2019

Subject Code

MA - Medical Assisting

Course Number:

1321

Title:

Medical Office Laboratory Procedures

Catalog Description:

Basic principles of laboratory knowledge in the operations of a physician's office laboratory. Safety regulations along with the regulatory agency guidelines and requirements. A heavy emphasis is placed on patient instruction in the collection of a specimen, the proper processing of specimen to ensure a reliable result, and the reporting of test results.

Credit Hour(s):

2

Lecture Hour(s):

2

Requisites

Prerequisite and Corequisite

ENG-1010 College Composition I, or ENG-101H Honors College Composition I; and MATH-0955 Beginning Algebra or appropriate math placement score; and MA-1010 Introduction to Medical Terminology; and concurrent enrollment in MA-132L Medical office Laboratory Procedures, and departmental approval: admission to Medical Assisting program.

Outcomes

Course Outcome(s):

A. Apply knowledge of methods of maintaining a safe working environment in the office laboratory.

Objective(s):

1. 1. Identify hazardous substances and conditions that are present in a physical's office laboratory.
2. 2. Explain appropriate precautions when handling biological specimens to ensure a safe laboratory-working environment.

Course Outcome(s):

B. Apply knowledge of laboratory collection and processing techniques when working in a medical office.

Objective(s):

1. 8. Differentiate between serum and plasma.
2. 9. Analyze the theory and procedure for basic hematology tests.
3. 10. Explain the purpose of basic chemistry test.
4. 11. Discuss the basic microbiological principles.
5. 12. Explain the theory and procedure for basic microbiological tests.
6. 13. Discuss the purpose of basic serological tests.
7. 14. Discuss how to handle all test results whether normal or abnormal results.
8. 1. Analyze and adapt to developing good and proper techniques, which foster speed and accuracy.
9. 2. Discuss proper procedure to collect and process laboratory specimens which are taught in class.
10. 3. Analyze the principles of microscopy and model proper procedures when using a binocular microscope.
11. 4. Research and apply quality control principles as applied to the medical office laboratory.

12. 5. Apply knowledge of the general concepts of quality control and apply that knowledge in the procedures of established quality assurance program to generate quality control data.
 13. 6. Research the composition and functions of blood.
 14. 7. Discuss the importance of correct patient and specimen identification.
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Methods of Evaluation:

1. Quizzes
2. Tests
3. Class Participation in the reporting of patient instructions, reporting of lab results, and reporting of safety measures.
4. Written Assignments
5. Final examination
6. Attitude to include respect for school, instructors, classmates
7. Professionalism includes clean pressed uniform, clean shoes, wearing of badge, good personal hygiene, and completion of assignments

Course Content Outline:

1. Safety in the laboratory
 - a. Techniques to minimize physical, chemical, and biologic risks in the clinical laboratory
 - b. Chain-of-infection process to healthcare practice.
 - c. Proper hand-washing technique for medical asepsis
 - d. OSHA's requirement for a site-based Exposure Control Plan into office management procedures
 - e. Sanitation, disinfection, and sterilization procedures.
 - f. Procedure for sanitizing contaminated instruments.
2. Governmental regulations and agencies
 - a. Agencies that govern or influence practice in the clinical laboratory.
 - i. Centers for Disease Control and Prevention (CDC)
 - ii. Occupational Safety and Health Administration
 - iii. Environmental Protection Agency (EPA)
 - iv. Clinical and Laboratory Standards Institute (CLSI)
 - v. College of American Pathologists (CAP)
 - b. Explain the major areas included in the OSHA Compliance Guidelines
3. Metric system applications
 - a. Metric units used for measuring liquid volume, distance, and mass.
 - b. Fahrenheit temperature and Celsius temperature of common laboratory equipment.
4. Patient instruction in the preparation of tests and collection of specimens
 - a. Sensitivity to patients rights and feelings in collecting specimens.
 - b. Using critical thinking in patient assessment and patient care.
5. Description, function, and composition of blood
 - a. Three main functions of blood
 - b. Appearance of the five different types of leukocytes seen in a normal Wright-stained differential.
 - c. Appearance and function of thrombocytes.
 - d. Appearance and junction of granular and agranular leukocytes
 - e. Appearance and function of erythrocytes.
6. Identification of patient and specimen
 - a. Role of the clinical laboratory in patient care and the medical assistant's role in coordinating laboratory tests and results.
 - b. Role of the clinical laboratory in patient care and the medical assistant's role in coordinating laboratory tests and results.
 - c. Essential elements of a laboratory requisition
 - d. Chain of custody and illustrate why it is important
 - e. Sensitivity to patients' rights and feelings in collecting specimens
7. Phlebotomy complications
 - a. Typical problems that may be associated with venipuncture.
 - b. Major causes of hemolysis during venous blood collection
8. Point of care testing
 - a. Differences between in-Laboratory testing and Point of Care testing
 - b. Differences in documenting In-Laboratory Testing and Point of Care Testing
 - c. Reporting and charting of lab tests
 - d. Charting of a STAT result
 - e. Techniques for reporting of a lab report

9. Types of laboratory hazards
 - a. Steps to cleaning a hazard spill
 - b. Steps to using an eye wash correctly
10. Chain of custody
 - a. Steps to maintain chain of custody.
 - b. How to report a specimen for chain of custody
 - c. Chain of custody and model why it is important
Anatomy and Physiology of urine and the urinary tract
 - d. Structures and function of the urinary tract
 - e. Diseases and disorders associated with the urinary tract.
11. Steps in completing a phlebotomy and capillary stick
 - a. Equipment necessary in performing a venipuncture and capillary stick
 - b. Steps in performing a venipuncture and capillary stick
12. Types of blood cells
 - a. Different types of white blood cells
 - b. Difference between the diseases and disorders associated with blood
13. Microorganism Classification
 - a. Different classifications of microorganisms
 - b. Microorganisms and some of the diseases and disorders associated with various microorganisms
14. Identification of Pathogens
 - a. Different classifications of known pathogens
 - b. Various diseases and disorders associated with these pathogens

Resources

Proctor, Deborah B; Adams, Alexandra P. *Kinn's The Medical Assistant: An Applied Learning Approach*. 12th. St. Louis: Elsevier, 2014.

Proctor, Deborah B; Adams, Alexandra P. *Study Guide: Kinn's The Medical Assistant: An Applied Learning Approach*. {ts '2013-12-31 00:00:00'}.

Instructional Services

CTAN Number:

CTMAT009 (1 of 2 courses, both must be taken)

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