**High Plains Technology Center**

**Health Careers**

**Learning Activity Packet (LAP) for Basic Medical Assistant**

**Related unit of instruction:**

Medical Office Laboratory Procedures

**Approximate Completion time:**

6 hours

**Rationale for the Lap:**

This LAP is designed to give students an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore, students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports.

**Criteria for successful completion:**

By the end of this LAP the student will

1. Read and turn in work sheet for Chapter 49 in Kinn’s

*The Medical Assistant* book

1. Pass the test for this chapter

**Learning Objective:**

1. Define, spell and pronounce the terms listed in vocabulary.
2. Apply critical thinking skills in performing the patient assessment and patient care.
3. Illustrate the electrical conduction system though the heart.
4. Explain the concepts of cardiac polarization, depolarization and repolarization.
5. Summarize the properties of the electrocardiograph.
6. Describe the electrical views of the heart recorded by the 12-lead electrocardiograph.
7. Discuss the process of recording an electrocardiogram.
8. Perform an accurate recording of the electrical activity of the heart.
9. Compare and contrast electrocardiographic artifacts and the probable cause of each.
10. Identify a typical electrocardiograph tracing.
11. Describe common electrocardiographic tracing.
12. Summarize cardiac diagnostic tests.
13. Fit a patient with a Holter monitor.

**High Plains Technology Center**

**Health Careers**

**Learning Activity Packet (LAP) for Basic Medical Assistant**

**Related unit of instruction:**

Medical Office Laboratory Procedures

**Approximate Completion time:**

6 hours

**Rationale for the Lap:**

This LAP is designed to give students an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore, students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports.

**Criteria for successful completion:**

By the end of this LAP the student will

1. Read and turn in work sheet for Chapter 50 in Kinn’s

*The Medical Assistant* book

1. Pass the test for this chapter

**Learning Objective:**

1. Define, spell and pronounce the terms listed in the vocabulary.
2. Apply critical thinking skills in performing the patient assessment and patient care.
3. Identify the principal components of an x-ray machine.
4. Describe the cassette and film image receptor system and explain its function in radiography.
5. Recognize the precautions to be taken when unloading, loading and processing radiographic film and cassettes.
6. Distinguish among the three body planes and use these terms correctly when discussing radiographic positions.
7. Identify anteroposterior (AP), posteroanterior (PA), lateral, oblique, and axial radiographic projections.
8. Compare and contrast radiography and fluoroscopy and give examples of appropriate applications of each.
9. List and describe imaging modalities that do not involve x-rays.
10. Explain the patient preparation guidelines for typical diagnostic imaging examinations.
11. Outline the general procedure for assisting with an x-ray examination.
12. Apply patient education principles when providing instructions for preparing for diagnostic procedures.
13. Apply patient education principles when providing instructions for preparing for diagnostic procedures.
14. Describe the health risks associated with low doses of x-ray exposure, such as those used in radiography.
15. Summarize the steps for ensuring that patients receive the least possible exposure during x-ray procedures.
16. Describe precautions for ensuring the safety of equipment operators and staff members during x-ray procedures.
17. Explain the legal responsibilities associated with x-ray procedures and the administrative management of diagnostic images.

**High Plains Technology Center**

**Health Careers**

**Learning Activity Packet (LAP) for Basic Medical Assistant**

**Related unit of instruction:**

Introduction to Medical Office Clinical Procedures (Part 2)

**Approximate Completion time:**

18.5 hours

**Rationale for the Lap:**

This LAP is designed to give students an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore, students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports.

**Criteria for successful completion:**

By the end of this LAP the student will

1. Read and turn in work sheet for Chapter 53 in Kinn’s

*The Medical Assistant* book

1. Pass the test for this chapter

**Learning Objective:**

1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Apply critical thinking skills in performing the patient assessment and patient care.
3. List the equipment needed for venipuncture.
4. Explain the purpose of a tourniquet.
5. Explain how to apply a tourniquet and three consequences of improper application.
6. Explain why the stopper colors on evacuated tubes differ.
7. State the correct order in which samples for various types of tubes should be collected.
8. Describe the types of sharps used in phlebotomy.
9. Explain why a syringe would be chosen for blood collection rather than an evacuated tube.
10. Discuss the use of sharps with engineered sharps injury protection.
11. Summarize postexposure management of needle sticks.
12. Detail patient preparation for venipuncture that shows sensitivity to the patient’s rights and feelings.
13. Describe and name the veins that may be used for blood collection.
14. List in order the steps of a routine venipuncture.
15. Collect a venous blood sample using the syringe method.
16. Collect a venous blood sample using the evacuated tube method.
17. Explain why a winged infusion set (butterfly needle) would be chosen over an evacuated tube.
18. Perform a venipuncture using a winged infusion set.
19. Summarize typical problems that may be associated with venipuncture.
20. Identify the major causes of hemolysis during venous blood collection.
21. List situations in which capillary puncture would be preferred over venipuncture.
22. Discuss proper dermal puncture sites.
23. Describe containers that may be used to collect capillary blood.
24. Explain why the first drop of blood is wiped away when a capillary puncture is performed.
25. Perform a capillary puncture.
26. Differentiate whole blood, serum and plasma and give an example of a test performed with each.
27. Describe handling and transport methods for blood after collection.

**High Plains Technology Center**

**Health Careers**

**Learning Activity Packet (LAP) for Basic Medical Assistant**

**Related unit of instruction:**

Medical Office Laboratory Procedures

**Approximate Completion time:**

18.5 hours

**Rationale for the Lap:**

This LAP is designed to give students an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore, students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports.

**Criteria for successful completion:**

By the end of this LAP the student will

1. Read and turn in work sheet for Chapter 54 in Kinn’s

*The Medical Assistant* book

1. Pass the test for this chapter

**Learning Objective:**

1. Define, spell and pronounce the terms listed in the vocabulary.
2. Apply critical thinking skills in performing the patient assessment and patient care.
3. Name three main functions of blood.
4. Identify the role of the hematology laboratory in patient care.
5. Describe the appearance and function of erythrocytes.
6. Describe the appearance and function of granular and agranular leukocytes.
7. Differentiate between T cells and B cells.
8. Describe the appearance and function of thrombocytes.
9. Explain the process of clot formation.
10. Identify the anticoagulant of choice for hematology testing.
11. Explain the purpose of the microhematocrit test.
12. Perform a microhematocrit test.
13. Explain the role of hemoglobin in the body.
14. Perform a hemoglobin test.
15. Identify the tests included in a complete blood count (CBC) and their reference ranges.
16. Explain the process of automated blood cell counting.
17. Distinguish between normal and abnormal test results.
18. Describe the red blood cell (RBC) indices and how they are calculated.
19. Explain the reasons for performing a white blood cell (WBC differential.
20. Discuss the Wright’s stain sequence.
21. Describe the appearance of normal erythrocytes.
22. Describe the appearance of the five different types of leukocytes seen in a normal Wright-stained differential.
23. Cite the reasons for performing an erythrocyte sedimentation rate test.
24. Describe the sources of error for the erythrocyte sedimentation rate test.
25. Determine an erythrocyte sedimentation rate using a modified Westergren method.
26. Describe the tests performed to assess coagulation.
27. Differentiate between the ABO blood groupings and the Rh blood groupings.
28. Secure a capillary blood sample and determine the ABO and Rh grouping of the sample.
29. Discuss rare blood types and the implication of having a rare blood type when transfusion is necessary.
30. Describe the methodology behind the clinical chemistry testing methods used in the physician’s office laboratory.
31. Explain the reasons for testing blood glucose, blood cholesterol, hemoglobin A1c, thyroid hormone levels, and liver enzymes.
32. Perform a cholesterol test using a cholesterol monitor approved by the U.S. Food and Drug Administration (FDA).
33. Summarize typical chemistry panels, the reason for performing each panel, and the individual tests performed in those panels.

**High Plains Technology Center**

**Health Careers**

**Learning Activity Packet (LAP) for Basic Medical Assistant**

**Related unit of instruction:**

Medical Office Laboratory Procedures

**Approximate Completion time:**

6 hours

**Rationale for the Lap:**

This LAP is designed to give students an overview of patient preparation, collection, handling, quality control and transporting of specimens for the most common CLIA (Clinical Laboratory Improvement Amendments) waived laboratory tests performed in a doctor's office. Furthermore, students demonstrate how to complete medical laboratory request forms and laboratory/pathology reports.

**Criteria for successful completion:**

By the end of this LAP the student will

1. Read and turn in work sheet for Chapter 55 in Kinn’s

*The Medical Assistant* book

1. Pass the test for this chapter

**Learning Objective:**

1. Define, spell and pronounce the terms listed in the vocabulary.
2. Apply critical thinking skills in performing the patient assessment and patient care.
3. Cite the protocols for the collection, transport and processing of specimens.
4. Identify the elements needed for microbial growth.
5. Compare bacteria with viruses.
6. Compare bacteria with viruses.
7. Describe the bacterial structures used in identification.
8. Compare bacteria with fungi, parasites and protozoa.
9. Describe various bacterial morphologies.
10. Explain the characteristics of common diseases caused by bacteria.
11. Describe the unusual characteristics of Chlamydia, Rickettsia and Mycoplasma organisms.
12. Identify the characteristics of common diseases caused by fungi, protozoa, and parasites.
13. Perform patient education on the collection of a stool specimen for ova and parasite testing.
14. Describe the equipment needed in a microbiology laboratory.
15. List the different growth media used for culturing.
16. Describe the preparation of a bacterial smear.
17. Perform the procedure for inoculating a blood agar plate.
18. Perform a urine culture.
19. Perform a screening urine culture test.
20. Prepare a direct smear or culture smear for staining.
21. Compare and contrast the throat culture for Streptococcus pyogenes with the rapid strip test.
22. Perform a rapid strep test.
23. Describe three microbiologic tests that use a rapid identification technique.
24. Describe the method used for antimicrobial susceptibility testing.
25. Explain how pinworm testing is done and when it must be performed.
26. Perform a cellulose tape collection for pinworms.
27. Discuss the purpose of immunologic tests that could be done in the physician’s office laboratory.
28. Describe three rapid immunologic tests that could be done in the physician’s office laboratory.
29. Perform the Mono-test for mononucleosis.
30. Discuss legal and ethical issues involved in laboratory testing.