

**MODESTO JUNIOR COLLEGE  
MEDICAL ASSISTING PROGRAM  
Syllabus**

**Course Number**     **MDAST 323**

**Course Title:**       **Medical Assisting Clinical Procedures**

**Course Description:**     Clinical medical assisting skills, which pertain to preparing the patient for examination and assisting patient and physician during patient examination and treatment. The assistant must anticipate the physician's needs as to the type of examination, the specific equipment needed, and the extent of assistance required by the patient. This requires judgment based on a reasonable understanding of physical examinations, the methods and equipment used, and the related role of the medical assistant.

**Credit:**               **3 units**

**Class Hours:**       **Hybrid Course / 3 hours lab per week**

**Instructor:**         **Chelsea Coulson email: [coulsonc@mjc.edu](mailto:coulsonc@mjc.edu)  
Office: Glacier Hall 123 phone (209) 575-6363  
Class location: Glacier Hall 207  
Office Hours Monday 1:00 pm – 5:00 pm and Wednesday 11:30 am – 12:30 pm *Students are welcome to email or call for an appointment***

**Methods of Instruction:**     This course will be taught by lecture, collaborative learning experience, guided discussion, audio-visual materials, simulated lab activities, case studies, computer assignments, and student presentations.

**Texts:**               **Niedzwiecki, Pepper, & Weaver (2020). The Medical Assistant (14<sup>th</sup> ed.). St. Louis, Missouri: Elsevier**

**Niedzwiecki, Pepper, & Weaver (2020). Study Guide and Procedure Checklist Manual for The Medical Assistant (14<sup>th</sup> ed.). St. Louis, Missouri: Elsevier**

**Minimum  
Performance  
Standards:**

The student will receive one grade from this course. The requirements for satisfactory completion and minimum performance in this course will be evaluated by the instructor based on the student's:

- I. **Tests, quizzes, class assignments, computer assignments and written assignments.**
- II. **Successful completion of entry-level procedures for the medical assistant.**

The student then has a maximum of three attempts to achieve a satisfactory rating by the instructor for each procedure. **“Achievement of the competencies” means that each student has successfully achieved 100% of the MAERB Core Curriculum psychomotor (skills) and affective (behavior) competencies taught with that course. The student must successfully complete all of the psychomotor (skills) and affective (behavior) competencies in the course.**

Failure to clearly demonstrate any of the Minimum Performance Standards will result in failure of the course.

If the student's performance falls below a “C”, the instructor will require a counseling session with the student and complete a Student Contact Sheet.

If improvement does not take place, the instructor will initiate another meeting with the student and complete a Probation Notice.

If the student's performance remains unsatisfactory, the student will need to repeat the entire course.

Any student required to repeat a medical assisting course will be required to withdraw from the program and reapply to repeat the course the following year.

**Grading  
Scale:**

**The grading policy requires a grade of “C” or better to progress in the Medical Assisting Program.**

- A = 100-90%**
- B = 89-80%**
- C = 79-70%**
- D = 69-60%**
- F = 59% and below**

**A. COURSE GOAL**

*As a result of satisfactory completion of this course, the student should be prepared to:*

Demonstrate an understanding and perform entry-level competencies of the Medical Assistant.

**B. STUDENT LEARNING GOALS**

*Mastery of the following learning goals will enable the student to achieve the overall course goal.*

**Required Learning Goals**

*Upon satisfactory completion of this course, the student will be able to:*

- a. Obtain and record patient data.
- b. Assess and respond to patient needs.
- c. Prepare the examination and treatment area.
- d. Prepare patient for examination and diagnostic procedures.
- d. Assist the physician with examination and treatments.
- e. Maintain and use aseptic technique.
- f. Administer specified medications under the direction of the physician.
- g. Maintain medication records.

## **COURSE LEARNING OUTCOMES**

Upon satisfactory completion of this course, the student should be prepared to:

1. Obtain and record patient data.
2. Prepare the treatment area for patient examinations and diagnostic procedures.
3. Apply aseptic technique to medical assisting practices.
4. Administer specified medications and maintain medication records.

**PREPARATION:**

**Read Chapter 18 in The Medical Assistant**

**Complete Chapter 18 in the Study Guide and Procedure Checklist Manual**

**CONTENT**

*Medical terminology is a specialized vocabulary that has its roots in Greek and Latin word components. Professionals in healthcare use this terminology to communicate with each other. By applying the process of “decoding,” or recognizing the word components and their meanings, you will be able to interpret literally thousands of medical terms.*

**LEARNING OBJECTIVES**

1. Review the origins of medical terminology and discuss the difference between decodable and nondecodable terms.
2. Describe how to decode terms using the check, assign, reverse, and define (CARD) method.
3. Use the rules given to build and spell healthcare terms.
4. Describe the structural organization of the human body.
5. Properly use surface anatomy, positional, and directional terminology.
6. Describe body cavities, abdominopelvic quadrants, and body planes.
7. Discuss the acid-base balance in the human body.
8. Discuss pathology basics, including pathology terminology, protection mechanisms, predisposing factors, and the causes of disease.

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- I.C.1. Describe structural organization of the human body
- I.C.2. Identify body systems
- I.C.3. Describe:
  - a. body planes
  - b. directional terms
  - c. quadrants
  - d. body cavities
- I.C.4. List major organs in each body system
- I.C.5. Identify the anatomical location of major organs in each body system
- I.C.7. Describe the normal function of each body system
- I.C.8. Identify common pathology related to each body system including:
  - a. signs
- V.C.9. Identify medical terms labeling the word parts
- V.C.10. Define medical terms and abbreviations related to all body system

## **PROCEDURES:**

**None**

**PREPARATION:**

**Read Chapter 19 in The Medical Assistant**

**Complete Chapter 19 in the Study Guide and Procedure Checklist Manual**

**CONTENT**

*This chapter addresses the need for infection control and the impact of OSHA guidelines on the medical practice. Every procedure begins and ends with hand washing. The concepts in this chapter are basic to all clinical practices and following them can lessen the transmission of disease, reduce the severity of disease, and save your life or the life of a patient or co-worker.*

**LEARNING OBJECTIVES**

1. Describe the characteristics of pathogenic microorganisms.
2. Do the following related to the chain of infection:
  - Apply the chain of infection process to healthcare practice.
  - Compare viral and bacterial cell invasion.
  - Differentiate between humoral and cell-mediated immunity.
3. Summarize the impact of the inflammatory response on the body's ability to defend itself against infection.
4. Analyze the differences between acute, chronic, latent, and opportunistic infections.
5. Do the following related to OSHA standards for the healthcare setting:
  - Specify potentially infectious bodily fluids.
  - Integrate OSHA's requirement for a site-based exposure control plan into office management procedures.
  - Explain the four major areas included in the OSHA Compliance Guidelines.
  - Discuss protocols for disposal of biologic chemical materials.
  - Remove contaminated gloves while following Standard Precautions principles.
  - Summarize the management of post exposure evaluation and follow-up and participate in blood-borne pathogen training and mock exposure event.

6. Apply the concepts of medical and surgical asepsis to the health care setting.
7. Discuss proper hand washing, and demonstrating the proper handwashing technique for medical asepsis.
8. Differentiate among sanitization, disinfection, and sterilization procedures and select barrier/personal protective equipment while demonstrating the correct procedure for sanitization of contaminated instruments.
9. Discuss the role of the medical assistant in asepsis.

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- III.C.1. List major types of infectious agents
- III.C.2. Describe the infection cycle including:
  - a. the infectious agent
  - b. reservoir
  - c. susceptible host
  - d. means of transmission
  - e. portals of entry
  - f. portals of exit
- III.C.3. Define the following as practiced within an ambulatory care setting:
  - a. medical asepsis
  - b. surgical asepsis
- III.C.4. Identify methods of controlling the growth of microorganisms
- III.C.5. Define the principles of standard precautions
- III.C.6. Define personal protective equipment (PPE) for:
  - a. all body fluids, secretions, and excretions
  - b. blood
  - c. non-intact skin
  - d. mucous membranes
- III.C.7. Identify Center for Disease Control (CDC) regulations that impact healthcare practices
- XII.C.2. Identify safety techniques that can be used in responding to accidental exposure to:
  - a. blood
  - b. other body fluids
  - c. needle stick
  - d. chemicals
- XII.C.6. Discuss protocols or disposal of biological chemical materials

## **Psychomotor Skills:**

- I.P.3. Perform patient screening using established protocols
- III.P.1. Participate in bloodborne pathogen training
- III.P.2. Select appropriate barrier/personal protective equipment (PPE)
- III.P.3. Perform handwashing
- III.P.4. Prepare items for autoclaving
- III.P.5. Perform sterilization procedures
- III.P.10. Demonstrate proper disposal of biohazardous material:
  - b. regulated wastes

## **PROCEDURES:**

- 19.1** Remove Contaminated Gloves and Discard Biohazardous Material
- 19.2** Perform Hand Hygiene
- 19.3** Sanitizing Soiled Instruments

## **CHAPTER 20                      Vital Signs**

### **PREPARATION:**

**Read Chapter 20 in The Medical Assistant  
Complete Chapter 20 in the Study Guide and Procedure Checklist Manual**

### **CONTENT:**

*The accurate measuring and recording of vital signs is a major responsibility of the medical assistant. This task requires a thorough understanding of the physiologic aspects of the vital signs, height, weight, and physical characteristics. This chapter introduces these concepts to the medical assisting student.*

### **LEARNING OBJECTIVES:**

1. Do the following related to temperature:
  - Cite the average body temperature for various age groups.
  - Describe emotional and physical factors that cause body temperature to rise and fall.
  - Convert temperature readings between the Fahrenheit and Celsius scales.
  - Obtain and record an accurate patient temperature using three different types of thermometers.
  
2. Do the following related to pulse:
  - Cite the average pulse rate for various age groups.
  - Describe pulse rate, volume, and rhythm.
  - Locate and record pulse at multiple sites.
  
3. Do the following related to respiration:
  - Cite the average respiratory rate for various age groups.
  - Demonstrate the best ways to obtain an accurate respiratory count.
  
4. Do the following related to blood pressure:
  - Cite the approximate blood pressure range for various age groups.
  - Specify physiologic factors that affect blood pressure.
  - Differentiate between essential and secondary hypertension.

- Interpret current hypertension guidelines and treatment.
  - Describe how to determine the correct cuff size for individual patients.
  - Identify the different Korotkoff phases.
  - Accurately measure and document blood pressure.
5. Discuss and perform pulse oximetry.
  6. Accurately measure and document height and weight, use the body mass index scale, and convert kilograms to pounds and pounds to kilograms.

## **COMPETENCIES:**

### **Psychomotor Skills:**

- |         |   |
|---------|---|
| I.P.1.  | Measure and record: <ol style="list-style-type: none"> <li>a. blood pressure</li> <li>b. temperature</li> <li>c. pulse</li> <li>d. respirations</li> <li>e. height</li> <li>f. weight</li> <li>i. pulse oximetry</li> </ol> |
| I.P.3.  | Perform patient screening using established protocols   |
| I.P.8.  | Instruct and prepare a patient for a procedure or a treatment   |
| II.P.2. | Differentiate between normal and abnormal test results  |
| X.P.3.  | Document patient care accurately in the medical record  |

## **PROCEDURES;**

- 20.1** Obtain an Oral Temperature Using a Digital Thermometer
- 20.2** Obtain an Axillary Temperature Using a Digital Thermometer
- 20.3** Obtain a Rectal Temperature of an Infant Using a Digital Thermometer
- 20.4** Obtain a Temperature Using a Tympanic Thermometer
- 20.5** Obtain a Temperature Using a Temporal Artery Thermometer
- 20.6** Obtain an Apical Pulse
- 20.7** Assess the Patient's Radial Pulse and Respiratory Rate
- 20.8** Determine a Patient's Blood Pressure
- 20.9** Perform Pulse Oximetry
- 20.10** Measure a Patient's Weight and Height

## CHAPTER 21      Physical Examination

### **PREPARATION:**

**Read Chapter 21 in The Medical Assistant  
Complete Chapter 21 in the Study Guide and Procedure Checklist Manual**

### **CONTENT:**

*The physical examination is the physician's primary diagnostic tool. As the physician's facilitator, the medical assistant not only must master the skills required to prepare the patient and to assist the physician, but also comprehend the process of the physical examination.*

### **LEARNING OBJECTIVES**

1. Describe the components of the patient's history and how to collect the history information.
2. Do the following related to understanding and communicating with patients:
  - Discuss how to successfully understand and communicate with patients and display sensitivity to diverse populations.
  - Demonstrate therapeutic communication feedback techniques to obtain information when gathering a patient history.
  - Obtain and document patient information.
  - Respond to nonverbal communication when interacting with patients.
  - Compare open-ended and closed-ended questions.
3. Do the following related to the patient interview:
  - Discuss the patient interview.
  - Identify barriers to communication and their impact on the patient assessment.
  - Detect a patient's use of defense mechanisms and the resultant barriers to therapeutic communication.
  - Demonstrate professional patient interviewing techniques.
4. Discuss the use of therapeutic communication techniques with patients across the life span.
5. Compare and contrast signs and symptoms.
6. Document patient care accurately in the medical record.

7. Do the following related to the physical examination:
  - Outline the medical assistant's role in preparing for the physical examination.
  - Summarize the instruments and equipment the provider typically uses during a physical examination.
8. Identify the principles of body mechanics and demonstrate proper body mechanics.
9. Outline the basic principles of gowning, positioning, and draping a patient for examination; also, describe how to position and drape a patient in different examining positions while remaining mindful of the patient's privacy and comfort.
10. Describe the methods of examination, and give an example of each.
11. Outline the sequence of a routine physical examination. Also, prepare for and assist in the physical examination of a patient, correctly completing each step of the procedure in the proper sequence.

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- V.C.1. Identify styles and types of verbal communication
- V.C.5. Recognize the elements of oral communication using a sender-receiver process
- V.C.11. Define the principles of self-boundaries
- V.C.16. Differentiate between subjective and objective information
- VI.C.4. Define types of information contained in the patient's medical record
- XII.C.7. Identify principles of:
  - a. body mechanics

### **Psychomotor Skills:**

- I.P.3. Perform patient screening using established protocols
- I.P.8. Instruct and prepare a patient for a procedure or a treatment
- I.P.9. Assist provider with a patient exam
- III.P.10. Demonstrate proper disposal of biohazardous material:
  - a. sharps
  - b. regulated wastes

- V.P.1. Use feedback techniques to obtain patient information including:
  - a. reflection
  - b. restatement
  - c. clarification
- V.P.2. Respond to nonverbal communication
- V.P.3. Use medical terminology correctly and pronounced accurately to communicate information to providers and patients
- X.P.3. Document patient care accurately in the medical record
- XII.P.3. Use proper body mechanics

**Affective Behavior:**

- V.A.1. Demonstrate:
  - a. empathy
  - b. active listening
  - c. nonverbal communication
- V.A.2. Demonstrate the principles of self-boundaries

**PROCEDURES**

- 21.1** Obtain and Document Patient Information
- 21.2** Respond to Nonverbal Communication
- 21.3** Use Proper Body Mechanics
- 21.4** Fowler's and Semi-Fowler's Positions
- 21.5** Supine (Horizontal Recumbent) and Dorsal Recumbent Positions
- 21.6** Lithotomy Position
- 21.7** Sim's Position
- 21.8** Prone Position
- 21.9** Knee-Chest Position
- 21.10** Assist Provider with a Patient Exam

## **CHAPTER 22      Patient Coaching**

### **PREPARATION:**

**Read Chapter 22 in The Medical Assistant  
Complete Chapter 22 in the Study Guide and Procedure Checklist Manual**

### **CONTENT:**

*In this chapter patient coaching begins with the first contact between the patient and the healthcare team. A well-informed patient is more likely to comply with treatment and adopt a healthy lifestyle.*

### **LEARNING OBJECTIVES:**

1. Describe the medical assistant's role as a coach.
2. List and describe the stages of grief; also, discuss how the health belief model helps to explain what factors influence a person's health beliefs and practices.
3. Describe the three domains of learning.
4. Explain how a medical assistant can adopt coaching to the patient.
5. Describe the teaching-learning process.
6. Discuss how a medical assistant can coach on disease prevention.
7. Describe how a medical assistant can coach on health maintenance and wellness, including different types of self-exams and screenings.
8. Describe how a medical assistant can coach on diagnostic procedures and treatment plans.
9. Describe care coordination and patient navigation, develop a list of community resources, and facilitate referrals.

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- V.C.6. Define coaching a patient as it relates to:
  - a. health maintenance
  - b. disease prevention
  - c. compliance with treatment plan
  - d. community resources
  - e. adaptation relevant to individual patient needs
- V.C.12. Define patient navigator
- V.C.13. Describe the role of the medical assistant as a patient navigator

### **Psychomotor Skills:**

- V.P.4. Coach patients regarding:
  - b. health maintenance
  - c. disease prevention
- V.P.5. Coach patients appropriately considering:
  - a. cultural diversity
  - b. developmental life stage
  - c. communication barriers
- V.P.9. Develop a current list of community resources related to patients' healthcare needs
- V.P.10. Facilitate referrals to community resources in the role of a patient navigator
- X.P.3. Document patient care accurately in the medical record

## **PROCEDURES**

- 22.1** Coach a Patient on Disease Prevention
- 22.2** Develop a List of Community Resources and Facilitate Referrals

## **CHAPTER 23      Nutrition and Health Promotion**

### **PPREPARATION:**

**Read Chapter 23 in The Medical Assistant  
Complete Chapter 23 in the Study Guide and Procedure Checklist Manual**

### **CONTENT:**

*Good health is a state of emotional and physical well-being that is determined, to a large extent, by diet. A key to health promotion and disease prevention is sound nutrition.*

### **LEARNING OBJECTIVES:**

1. Describe metabolism.
2. Describe dietary nutrients, including carbohydrates, fiber, protein, fat, minerals and electrolytes, vitamins, and water.
3. Explain current dietary guidelines.
4. Describe how to read a food label.
5. Describe the different types of medically ordered diets.
6. Identify the special dietary needs for weight control, diabetes mellitus, cardiovascular disease, and hypertension.
7. Identify the special dietary needs for those with food allergies, celiac disease, and lactose intolerance.
8. Identify special dietary needs for those with various conditions, including pregnancy and lactation, epilepsy, HIV and AIDS, and cancer.
9. Instruct a patient on dietary changes while demonstrating awareness of others' concerns.

## COMPETENCIES:

### Cognitive Knowledge:

- IV.C.1. Describe dietary nutrients including:
  - a. carbohydrates
  - b. fat
  - c. protein
  - d. minerals
  - e. electrolytes
  - f. vitamins
  - g. fiber
  - h. water
- IV.C.2. Define the function of dietary supplements
- IV.C.3. Identify the special dietary needs for:
  - a. weight control
  - b. diabetes
  - c. cardiovascular disease
  - d. hypertension
  - e. cancer
  - f. lactose sensitivity
  - g. gluten-free
  - h. food allergies

### Psychomotor Skills:

- IV.P.1. Instruct a patient according to patient's special dietary needs
- V.P.1. Use feedback techniques to obtain patient information including:
  - a. reflection
  - b. restatement
  - c. clarification
- V.P.4. Coach patients regarding:
  - d. treatment plan
- V.P.5. Coach patients appropriately considering:
  - a. cultural diversity
  - b. developmental life stage
  - c. communication barriers
- X.P.3. Document patient care accurately in the medical record

### Affective Behavior:

- IV.A.1. Show awareness of patient's concerns regarding a dietary change

**PROCEDURES:**

**23.1** Instruct a Patient on a Dietary Change

**PREPARATION:**

**Read Chapter 24 in The Medical Assistant  
Complete Chapter 24 in the Study Guide and Procedure Checklist Manual**

**CONTENT:**

*With so many procedures being performed outside the hospital, the medical assistant plays a key role in preoperative and postoperative processes. The medical assistant must understand the general principles of surgical procedures and become competent in the skills necessary to assist the patient in preparing for surgery.*

**LEARNING OBJECTIVES:**

1. Describe typical solutions and medications used in minor surgical procedures.
2. Summarize methods for identifying surgical instruments used in minor office surgery, and then identify some surgical instruments.
3. Outline the general classifications of surgical instruments.
4. Identify drapes and different types of sutures and surgical needles.
5. Describe the care and handling of surgical instruments.

**COMPETENCIES:****Cognitive Knowledge:**

- I.C.12. Identify quality assurance practices in healthcare
- III.C.3. Define the following as practiced within an ambulatory care setting:
  - a. medical asepsis
- V.C.6. Define coaching a patient as it relates to:
  - c. compliance with treatment plan

**Psychomotor Skills:**

- III.P.5. Perform sterilization procedures

**PROCEDURES**

- 24.1.** Wrap Instruments and Supplies for Sterilization in an Autoclave
- 24.2** Operate the Autoclave

## **CHAPTER 25      Assisting with Surgical Procedures**

### **PREPARATION:**

**Read Chapter 25 in The Medical Assistant  
Complete Chapter 25 in the Study Guide and Procedure Checklist Manual**

### **CONTENT**

*In surgery, the patient's protection is of the utmost importance. When a procedure breaks the skin barrier or invades the sterile field, the danger of infection always exists for the patient. The medical assistant must be constantly on the lookout for situations that might be harmful to the patient. Two areas that are strongly affected by an awareness of the patient's safety are sterilization procedures and aseptic technique. The medical assistant must acquire accurate skills in both of these areas before being able to prepare the patient for surgery and to assist the physician with surgical routines.*

### **LEARNING OBJECTIVES:**

1. Summarize common minor surgical procedures.
2. Detail the medical assistant's role in minor office surgery when it comes to preparation of the patient and the room. Also, explain how to perform skin prep for surgery.
3. Outline the rules for setting up and maintaining a sterile field; explain how to perform the following procedures related to sterile techniques:
  - Open a sterile pack and create a sterile field.
  - Transfer sterile instruments and pour solutions into a sterile field
  - Perform a two-person sterile tray setup
  - Apply sterile gloves without contaminating them
4. Discuss how to assist the provider during surgery and demonstrate how to assist with a minor surgical procedure and suturing.
5. Summarize postoperative instructions and explain how to remove sutures and surgical staples.
6. Explain the process of wound healing.
7. Explain how to properly apply dressings and bandages to surgical sites.

## COMPETENCIES

### Cognitive Knowledge:

- I.C.9. Analyze pathology for each body system including:
  - b. treatment modalities

### Psychomotor Skills

- I.P.8. Instruct and prepare a patient for a procedure or a treatment
- III.P.2. Select appropriate barrier/personal protective equipment
- III.P.3. Perform handwashing
- III.P.4. Prepare items for autoclaving
- III.P.6. Prepare a sterile field
- III.P.7. Perform within a sterile field
- III.P.8. Perform wound care
- III.P.9. Perform dressing change
- III.P.10. Demonstrate proper disposal of biohazardous material:
  - a, sharps
  - b. regulated wastes
- V.P.11. Report relevant information concisely and accurately
- X.P.3. Document patient care accurately in the medical record

### Affective Behavior:

- III.A.1. Recognize the implications for failure to comply with Center for Disease Control (CDC) regulations in healthcare settings
- V.A.4. Explain to a patient the rationale for performance of a procedure

## PROCEDURES

- 25.1** Perform Skin Prep for Surgery
- 25.2** Perform a Surgical Hand Scrub
- 25.3** Prepare a Sterile Field, Use Transfer Forceps, and Pour a Sterile Solution Into a Sterile Field
- 25.4** Two-Person Sterile Tray Setup
- 25.5** Put on Sterile Gloves
- 25.6** Assist with Minor Surgery
- 25.7** Apply a Sterile Dressing
- 25.8** Remove Sutures and/or Surgical Staples

**PREPARATION:**

**Read Chapter 28 in The Medical Assistant  
Complete Chapter 28 in the Study Guide and Procedure Checklist Manual**

**CONTENT:**

*Medical assistants need to have a general understanding of the types of drugs that are available as well as their uses. For every medication administered, a medical assistant must understand the drug's action, typical side effects, route of administration, recommended dose, and individual patient factors that can alter the drug's effect and elimination.*

**LEARNING OBJECTIVES:**

1. Describe the source and uses of drugs.
2. Describe pharmacokinetics, including absorption, distribution, metabolism, and excretion.
3. Discuss drug action, including the factors that influence drug action, the therapeutic effects of drugs, and adverse reactions to drugs.
4. Explain drug legislation that is important in the ambulatory care setting. Also, discuss dietary supplements.
5. Describe the four types of drug names.
6. Describe various methods to access drug reference information.
7. Identify the classifications of medications, including the indications for use, desired effects, side effects, and adverse reactions.
8. Discuss the terminology used in drug reference information, including describing the differences among biologic half-life, onset, peak, and duration.
9. Discuss types of medication orders.
10. List the four parts of a prescription and the information required for all prescriptions; prepare prescriptions using prescription refill procedures, and define commonly approved abbreviations.
11. Describe common requirements for scheduled substances.
12. Discuss over-the-counter (OTC) medications and herbal supplements.

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- I.C.11. Identify the classifications of medications including:
- a. indications for use
  - b. desired effects
  - c. side effects
  - d. adverse reactions

### **Psychomotor Skills**

- I.P.4. Verify the rules of medication administration:
- a. right patient
  - b. right medication
  - c. right dose
  - d. right route
  - e. right time
  - f. right documentation

## **PROCEDURES:**

### **28.1 Prepare a Prescription**

**PREPARATION:**

**Read Chapter 29 in The Medical Assistant Complete Chapter 29 in the Study Guide and Procedure Checklist Manual**

**CONTENT:**

*In this chapter you learn about general pharmacology principles and pharmacology math. It is a medical assistant's responsibility to be absolutely certain that the medication prepared and administered to a patient is exactly what is ordered by the physician.*

**LEARNING OBJECTIVES:**

1. Summarize the important parts of a drug label.
2. Discuss math basics, including writing numbers in healthcare and rounding numbers.
3. Define basic units of measure in the household systems and the metric system, and convert between measurement systems.
4. Convert between Fahrenheit and Celsius temperatures.
5. Perform pharmacology calculations, such as quantity needed for a specific time period, number of tablets per dose, liquid medication doses, and pediatric doses.
6. Read the calibration markings on various types of syringes.

**COMPETENCIES:****Cognitive Knowledge**

- II.C.1. Demonstrate knowledge of basic math computations
- II.C.2. Apply mathematical computations to solve equations
- II.C.3. Define basic units of measurement in:
  - a. the metric system
  - b. the household system
- II.C.4. Convert among measurement systems
- II.C.5. Identify abbreviations and symbols used in calculating medication dosages

**Psychomotor Skills:**

II.P.1. Calculate proper dosages of medication for administration

**PROCEDURES:**

**29.1** Calculate Proper Dosages of Medication Administration

**PREPARATION:**

**Read Chapter 30 in The Medical Assistant  
Complete Chapter 30 in the Study Guide and Procedure Checklist Manual**

**CONTENT:**

*In modern society, the use of drugs is often taken quite casually. This attitude, however, must be avoided by health care personnel. Although the use of drugs in patient care plans is prevalent, chemical intervention in human body processes always includes some element of risk. Medical assistants must acquire an appreciation for the serious responsibilities they assume in the administration of drugs. In this chapter you will learn about safety factors in drug administration, documentation guidelines, and the forms of medications and how they are administered.*

**LEARNING OBJECTIVES:**

1. Verify and discuss the rights of medication administration.
2. Discuss the various forms of medication.
3. Administer oral medications.
4. Describe other routes of medications, including sublingual, buccal, transdermal, inhalation, topical, irrigation, and parenteral.
5. Discuss types and parts of needles and syringes.
6. Prepare parenteral medications.
7. Prepare and administer intradermal injections.
8. Prepare and administer subcutaneous injections.
9. Prepare and administer intramuscular injections.
10. Describe the medical assistant's role in monitoring intravenous therapy

## **COMPETENCIES:**

### **Cognitive Knowledge:**

- II.C.5. Identify abbreviations and symbols used in calculating medication dosages

### **Psychomotor Skills:**

- I.P.4. Verify the rules of medication administration:
  - a. right patient
  - b. right medication
  - c. right dose
  - d. right route
  - e. right time
  - f. right documentation
- I.P.5. Select proper sites for administering parenteral medication
- I.P.6. Administer oral medications
- I.P.7. Administer parenteral (excluding IV) medications
- I.P.8. Instruct and prepare a patient for a procedure or a treatment
- II.P.1. Calculate proper dosages of medication for administration
- III.P.10. Demonstrate proper disposal of biohazardous materials:
  - a. sharps
  - b. regulated wastes
- X.P.3. Document patient care accurately in the medical record
- XII.P.2. Demonstrate proper use of:
  - c. sharps disposal containers

## **PROCEDURES:**

- 30.1** Administer Oral Medications
- 30.2** Prepare Medication from an Ampule
- 30.3** Prepare Medication Using a Prefilled Sterile Cartridge
- 30.4** Prepare Medication from a Vial
- 30.5** Reconstitute Powdered Medication
- 30.6** Mixing Two Insulins
- 30.7** Administer an Intradermal Injection
- 30.8** Administer a Subcutaneous Injection
- 30.9** Administer an Intramuscular Injection
- 30.10** Administer an Intramuscular Injection using the Z-track

(revised 4-2021sb)