

## Component III: Clinical

### Module D: Minor Office Surgery

#### Topic 3: Skin Preparation and Wound Care

##### Statement of Purpose

To prepare the learner with basic knowledge and skills necessary to do a surgical prep and to care for post-operative wounds.

##### Student Learning Outcomes

Upon completion of this topic, the learner will be able to:

1. Spell and define key terms.
2. Demonstrate techniques for preparing the patient's skin for minor surgery.
3. Describe the types of anesthetics most frequently seen in minor procedures.
4. Describe three methods of skin closure performed in the medical office.
5. Describe the proper techniques used for removal of sutures and surgical staples.
6. Describe instruments used for minor surgery
7. Discuss and demonstrate correct completion of an informed consent form.
8. Describe and demonstrate surgical asepsis
9. Describe and demonstrate how to set up a sterile field.

##### Terminology

- |                      |                     |
|----------------------|---------------------|
| 1. Abrasion          | 15. Intraoperative  |
| 2. Abscess           | 16. Laceration      |
| 3. Absorbable        | 17. Ligature        |
| 4. Anesthetic        | 18. Mayo stand      |
| 5. Approximate       | 19. Medical asepsis |
| 6. Atraumatic        | 20. Needle biopsy   |
| 7. Biopsy            | 21. Obturator       |
| 8. Chromic           | 22. Postoperative   |
| 9. Debridement       | 23. Preoperative    |
| 10. Dressing         | 24. Specula         |
| 11. Formalin         | 25. Sterile field   |
| 12. Incision         | 26. Suture          |
| 13. Infiltration     | 27. Trocar          |
| 14. Informed consent | 28. Vial            |

##### References

1. Kronenberger, J., Southard D. L., & Woodson, D. (2012). *Comprehensive Medical Assisting* (4<sup>th</sup> Ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.
2. Booth, Kathryn A. (2010). *Medical Assisting, Administrative and Clinical Procedures*, (4th Ed.) New York: McGraw-Hill.

Content Outline/Theory Objectives	Suggested Learning Activities
<p><b>Objective 1</b>  <b>Spell and define key terms.</b></p> <ul style="list-style-type: none"> <li>A. Review the terms listed in the terminology section.</li> <li>B. Spell the terms listed accurately.</li> <li>C. Pronounce the terms correctly.</li> <li>D. Use the terms in their proper context.</li> </ul>	<ul style="list-style-type: none"> <li>A. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman, and concentration.</li> <li>B. Administer vocabulary pre-test and post-test.</li> <li>C. Discuss learning gaps and plan for applying vocabulary.</li> </ul>
<p><b>Objective 2</b>  <b>Demonstrate techniques for preparing the patient's skin for minor surgery.</b></p> <ul style="list-style-type: none"> <li>A. Preparation of the skin <ul style="list-style-type: none"> <li>1. The Medical Assistant is responsible for preparing skin prior to the surgical procedure.</li> <li>2. Supplies to assemble in advance <ul style="list-style-type: none"> <li>a. Draping materials.</li> <li>b. Antiseptic.</li> <li>c. Soap.</li> <li>d. Sterile sponges.</li> <li>e. Sterile forceps.</li> <li>f. Razor.</li> <li>g. Antiseptic solution.</li> </ul> </li> <li>3. Confirm that patient has followed pre-surgical instructions and signed a consent form.</li> <li>4. Patient should be gowned and positioned.</li> <li>5. Patient should be asked if he/she is allergic to the antiseptic being used.</li> <li>6. Wash hands and put on exam gloves.</li> <li>7. Place a plastic backed drape under the patient.</li> <li>8. Cleaning (with an antiseptic solution) should start the center of the affected area and move outward in a firm, circular motion; discard gauze sponge.</li> <li>9. Repeat with another gauze with solution.</li> <li>10. Cleaning should be repeated for at least two minutes.</li> <li>11. Hair removal is done per office policy.</li> <li>12. If area must be shaved, it should be done after cleaning.</li> <li>13. Shave in the direction of hair growth to help prevent cuts to the skin.</li> <li>14. The area should then be rinsed and painted with antiseptic solution using a sterile cotton swab.</li> <li>15. Drape the area in preparation of procedure.</li> </ul> </li> <li>B. Types of wounds treated <ul style="list-style-type: none"> <li>1. Abrasions.</li> <li>2. Incisions.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Each student can prepare manikin's skin with antiseptic solution.</li> </ul>

<ul style="list-style-type: none"> <li>3. Lacerations.</li> <li>4. Punctures.</li> </ul>	
<p><b>Objective 3</b>  <b>Describe the types of anesthetics most frequently seen in minor procedures.</b></p> <ul style="list-style-type: none"> <li>A. Types of local anesthetics <ul style="list-style-type: none"> <li>1. Injected anesthetic <ul style="list-style-type: none"> <li>a. Packaged in a sterile vial (a small glass bottle with a self-sealing stopper.)</li> <li>b. Infiltration, injection into the skin and nerve endings in the area of the procedure.</li> <li>c. Nerve block, injection into major nerves in the area to deaden sensation and relieve pain in surrounding area.</li> </ul> </li> <li>2. Topical <ul style="list-style-type: none"> <li>a. Applied directly to the skin and affect only the area to which they are applied.</li> <li>b. Gels, creams and sprays may be used on skin or mucous membrane to reduce sensation and relieve pain.</li> </ul> </li> </ul> </li> <li>B. Medical Assistant role <ul style="list-style-type: none"> <li>1. Assist Physician in drawing up anesthetic.</li> <li>2. Retain the vial beside the syringe for the Physician's approval.</li> <li>3. Usually done before Physician gloves for procedure.</li> <li>4. Syringe will be in the sterile field.</li> <li>5. Show Physician the vial label to verify it is the proper medication.</li> <li>6. Prepare the top of vial by cleaning with an alcohol prep pad.</li> <li>7. Hold vial steady for Physician to insert needle and draw up solution.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Some possibilities for wound care practice <ul style="list-style-type: none"> <li>1. Ask a local stoma therapist to come to your class and explain wounds care.</li> <li>2. Find out if there is a wound care company (Johnson &amp; Johnson etc.) which would bring in and donate products for students to observe and handle.</li> <li>3. Ask one student to act as the Physician and ask another to hold a vial for drawing up solution.</li> </ul> </li> </ul>
<p><b>Objective 4</b>  <b>Describe three methods of skin closure performed in the medical office.</b></p> <ul style="list-style-type: none"> <li>A. Suture materials and needles <ul style="list-style-type: none"> <li>1. Suture material will vary in strength and size depending on its purpose and placement.</li> <li>2. Fine suture is used in areas such as the face or eye.</li> <li>3. Medium and coarse suture is used for areas that need more support such as arms, legs, back and abdomen.</li> <li>4. Types of suture <ul style="list-style-type: none"> <li>a. Absorbable <ul style="list-style-type: none"> <li>1) Absorbable suture are not generally removed, and remain in place until absorbed or degraded by the body.</li> <li>2) Catgut made from the intestine of</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Create a lab for suture removal.</li> <li>D. Ask each student to demonstrate suture set up.</li> </ul>

<p>sheep or cattle</p> <ul style="list-style-type: none"> <li>• Chromic, chemically treated to delay absorption for several days.</li> <li>• Plain, not chemically treated and is more quickly absorbed.</li> </ul> <p>3) Used most frequently on deep tissues.</p> <p>b. Non-absorbable</p> <ol style="list-style-type: none"> <li>1) Can remain in the body or be removed after healing.</li> <li>2) Used on skin, intestines, bone, large vessels and heart valves.</li> <li>3) Non-absorbable sutures made from silk, nylon, Dacron, cotton or stainless steel wire.</li> </ol> <p>5. Needles used in minor office surgery are chosen for the type of surgery to be performed.</p> <p>6. Needles are classified</p> <ol style="list-style-type: none"> <li>a. By shape, curved or straight.</li> <li>b. By point, tapered or cutting.</li> <li>c. By eye, atraumatic (swaged) or traumatic (with an eye).</li> </ol> <p>7. A needle holder is used to hold needles while suturing.</p> <p>8. Place and keep needles and suture in sterile field.</p> <p>B. Skin staples</p> <ol style="list-style-type: none"> <li>1. Available as a clip or staple.</li> <li>2. Made of stainless steel.</li> <li>3. Non-absorbable.</li> <li>4. Must be removed when a wound has healed completely.</li> </ol> <p>C. Adhesive skin closures</p> <ol style="list-style-type: none"> <li>1. Used to approximate wound edges if sutures are not needed.</li> <li>2. Used when there is little tension on the wound edges.</li> <li>3. Remain on wound until they loosen or fall off.</li> </ol>	
<p><b>Objective 5</b>  <b>Describe the proper techniques used for removal of sutures and surgical staples.</b></p> <p>A. Assemble equipment</p> <ol style="list-style-type: none"> <li>1. Mayo stand.</li> <li>2. Suture removal pack or prepackaged sterile staple removal instrument.</li> <li>3. Sterile towel.</li> <li>4. Antiseptic solution.</li> <li>5. Small sterile bowl.</li> <li>6. Sterile gauze squares.</li> <li>7. Sterile strips or butterfly closures.</li> <li>8. Sterile dressing.</li> </ol>	<p>A. Lecture/Discussion  B. Assigned Readings</p>

9. Tape.
- B. Suture removal
  1. Clean and disinfect Mayo stand.
  2. Wash hands.
  3. Check suture removal pack.
    - a. Date.
    - b. Sterilization indicator.
  4. Unwrap pack, place on Mayo stand to create sterile field.
  5. Unwrap bowl and add to sterile field.
  6. Pour small amount of antiseptic solution into bowl.
  7. Cover the tray with a sterile towel to protect the sterile field while you get the patient.
  8. Escort the patient into the exam room and explain the procedure.
  9. Perform a routine hand wash, remove towel from tray, put on examination gloves.
  10. Remove the old dressing
    - a. Lift tape toward middle of dressing to avoid pulling on wound.
    - b. If dressing adheres to wound, cover with gauze squares soaked in normal saline; leave in place to loosen dressing.
    - c. Save old dressing for Physician to inspect.
    - d. Inspect wound for signs of infection.
    - e. Clean wound with gauze pads soaked in antiseptic, pat dry with clean gauze.
    - f. Remove gloves, wash hands.
  11. Notify Physician that wound is ready for inspection.
  12. Once the Physician indicates that the wound is sufficiently healed proceed with suture removal
    - a. Put on clean examination gloves.
    - b. Place gauze square next to wound for collecting sutures as they are removed.
    - c. Grasp first suture knot with forceps.
    - d. Gently lift away from skin to allow room for suture scissors.
    - e. Slide suture scissors under suture material and cut suture where it enters the skin.
    - f. Gently lift upward and toward wound to remove suture without opening wound.
    - g. Place suture on gauze pad and inspect to ensure entire suture is present.
    - h. Repeat removal process until all the sutures have been removed.
    - i. Count the sutures and compare number with number indicated in patient's chart.
    - j. Clean wound with antiseptic and allow to air dry.

- k. Dress wound as ordered or notify Physician if sterile strips or butterfly closures are to be applied.
  - l. Observe patient for signs of distress.
- 13. Properly dispose of used materials and disposable instruments.
- 14. Remove gloves and wash hands.
- 15. Instruct the patient on wound care.
- 16. Document condition of wound and instructions given to patient in patient's chart.
- 17. Release patient.
- 18. Put on clean gloves.
- 19. Sanitize reusable instruments; prepare them for disinfection and/or sterilization.
- 20. Clean equipment and exam room.
- 21. Remove gloves and wash hands.
- C. Staple removal
  - 1. Clean and disinfect mayo stand.
  - 2. Wash hands.
  - 3. Check prepackaged sterile staple removal instrument
    - a. Date.
    - b. Inspect for rips or tears.
  - 4. Unwrap pack, place on Mayo stand to create sterile field.
  - 5. Unwrap bowls and add to sterile field.
  - 6. Pour small amount of antiseptic in solution bowl.
  - 7. Cover the tray with a sterile towel to protect the sterile field while you get the patient.
  - 8. Escort the patient into the exam room and explain the procedure.
  - 9. Perform a routine hand wash, remove towel from tray, put on examination gloves.
  - 10. Remove the old dressing
    - a. Lift tape toward middle of dressing to avoid pulling on wound.
    - b. If dressing adheres to wound, cover with gauze squares soaked in hydrogen peroxide; leave in place to loosen dressing.
    - c. Save old dressing for Physician to inspect.
    - d. Inspect wound for signs of infection.
    - e. Clean wound with gauze pads soaked in antiseptic, pat dry with clean gauze.
    - f. Remove gloves, wash hands.
  - 11. Notify Physician that wound is ready for inspection.
  - 12. Once the Physician indicates that the wound is sufficiently healed proceed with staple removal
    - a. Put on clean examination gloves.
    - b. Place gauze square next to wound for

<ul style="list-style-type: none"> <li>collecting staples as they are removed.</li> <li>c. Grasp first staple with staple remover by sliding under the staple.</li> <li>d. Gently press the handles together to lift the staple out of the skin.</li> <li>e. Place staple on gauze pad.</li> <li>f. Repeat removal process until all the staples have been removed.</li> <li>g. Count the staples and compare number with number indicated in patient's chart.</li> <li>h. Clean wound with antiseptic and allow to air dry.</li> <li>i. Dress wound as ordered or notify Physician if sterile strips or butterfly closures are to be applied.</li> <li>j. Observe patient for signs of distress.</li> <li>13. Properly dispose of used materials and disposable instruments.</li> <li>14. Remove gloves and wash hands.</li> <li>15. Instruct the patient on wound care.</li> <li>16. Document condition of wound and instructions given to patient in patient's chart.</li> <li>17. Release patient.</li> <li>18. Put on clean gloves.</li> <li>19. Sanitize reusable instruments; prepare them for disinfection and/or sterilization.</li> <li>20. Clean equipment and exam room.</li> <li>21. Remove gloves and wash hands.</li> </ul>	
<p><b>Objective 6</b>  <b>Describe instruments used for minor surgery</b></p> <p>A. Overview</p> <ul style="list-style-type: none"> <li>1. The types of instruments may vary with the medical specialty.</li> <li>2. Handled instruments have ring handles, spring handles, or ratcheted handles.</li> <li>3. Spring handles are sometimes also called ring handled instruments.</li> <li>4. Ratcheted handles are used to lock an instrument into position, depending on the thickness of the article being grasped.</li> <li>5. Instruments can be straight or curved.</li> <li>6. Some instruments have serrations on the jaws to aid in grasping.</li> </ul> <p>B. Categories of instruments</p> <ul style="list-style-type: none"> <li>1. Cutting and dissecting instruments <ul style="list-style-type: none"> <li>a. To cut tissue, incise, scrape, puncture or punch.</li> <li>b. Scissors, scalpels, curettes, drills, punches, chisels and needles.</li> <li>c. Common Types</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Instrument companies have DVDs explaining the types and uses of surgical instruments.</li> <li>D. Provide actual instruments for students to handle.</li> </ul>

- 1) Bandage scissors
    - Blunt tip to prevent skin damage when removing dressings.
    - Variety of sizes.
  - 2) Operating scissors
    - Examples: Iris, Metzenbaum, and Mayo.
    - To cut or dissect tissue.
    - Straight or curved blades.
  - 3) Suture scissors
    - To remove sutures.
    - Beak or hook to lift suture and cut it.
  - 4) Scalpel
    - Safety engineered disposable scalpel with attached blade.
    - Reusable handle with interchangeable blades (usually not used due to accidental injury).
2. Grasping and clamping instruments
- a. Used for grasping and clamping tissue.
  - b. Grasping instruments are used to hold surgical materials or remove foreign objects such as splinters.
    - 1) Forceps
      - Thumb.
      - Tissue.
      - Holding.
  - c. Clamping instruments are used to apply pressure and close off blood vessels.
  - d. Clamping instruments are also used to hold tissue and other materials in position.
    - 1) Hemostats
      - To stop bleeding or clamp severed blood vessels.
      - Serrated, curved, or straight.
      - Variety of sizes.
    - 2) Needle holders serrations/grooves to grasp curved needles tightly.
    - 3) Towel clamps, sharp tips to hold surgical draping in place.
3. Retraction, dilating and probing instruments
- a. Retracting instruments are used to hold back the sides of a wound or incision
    - 1) Allow better view of a surgical site.
    - 2) Can be held by hand or have ratchets or locks to keep them open.
  - b. Dilating instruments
    - 1) Slender, pointed instruments.

<ul style="list-style-type: none"> <li>2) Used to enlarge a body opening.</li> <li>c. Probing instruments <ul style="list-style-type: none"> <li>1) Slender rod with a blunt tip shaped like a bulb.</li> <li>2) Used to explore wounds or body cavities or to locate or clear blockages.</li> </ul> </li> <li>C. Other Instruments <ul style="list-style-type: none"> <li>1. Trocars, a stylus or removable plug used during insertion of many tubular instruments.</li> <li>2. Obturators, sharp pointed surgical instrument used with a cannula to puncture the wall of a body cavity and withdraw fluid.</li> <li>3. Specula, instrument used to dilate the opening of a cavity for a medical exam (e.g. Vaginal or nasal).</li> </ul> </li> </ul>	
<p><b>Objective 7</b>  <b>Discuss and demonstrate correct completion of an informed consent form.</b></p> <ul style="list-style-type: none"> <li>A. Prior to any surgical procedure, the patient must sign a consent form indicating that they have been informed of the benefits and risks of the procedure.</li> <li>B. Information for the procedure should come from the Physician.</li> <li>C. All of patient's questions should be answered by the Physician.</li> <li>D. Medical Assistant may witness the patient signature but the Physician must be the person who informs.</li> <li>E. Medical Assistant may give general information but any concerns the patient has about the procedure itself or concerns about the outcome of the procedure should be referred to the Physician and resolved prior to obtaining the signed consent.</li> <li>F. Patients cannot sign informed consents while under the influence of any sedating drugs.</li> <li>G. Medical Assistant can offer support and comfort to the patient prior to the procedure but should not guarantee a specific outcome.</li> <li>H. Avoid phrases such as "Everything will be okay" or "This won't hurt".</li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Obtain several versions of informed consent.</li> <li>D. Discuss the types of procedures that require an informed consent form.</li> </ul>
<p><b>Objective 8</b>  <b>Describe and demonstrate surgical asepsis.</b></p> <ul style="list-style-type: none"> <li>A. The purpose of surgical asepsis is to eliminate all microorganisms.</li> <li>B. Principles to remember in any minor surgery <ul style="list-style-type: none"> <li>1. Know which items are sterile and which are nonsterile; keep them separated.</li> <li>2. Take precautions to prevent accidental contamination of the sterile field once it is prepared.</li> <li>3. It is best not to leave the sterile field unattended,</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Allow each student to set up a sterile field.</li> <li>D. Provide each student with a sterile surgical pack and gloves.</li> <li>E. Each student can demonstrate sterile technique.</li> </ul>

- but if you must, cover it with a sterile towel.
4. Any contamination of your sterile clothing, gloves or the sterile field must quickly be addressed by replacing the contaminated items.
  5. Carefully examine sterile objects prior to use. Check the expiration date of each object and ensure that the wrapping is intact and dry.
  6. If there is any doubt about the sterility of the object, do not use it. Consider it unsterile. Discard or re-sterilize.
  7. The outside of sterile gloves must not be touched with bare hands. Once you have put on sterile gloves, you must not touch nonsterile items.
  8. The general rule is: Sterile + Sterile = Sterile; Sterile + Non-sterile = Non-sterile
  9. The sterile field, all sterile items and your sterile gloved hands must be kept at or above waist level at all times.
  10. Do not turn your back to a sterile field. The back of a sterile gown is considered contaminated.
  11. Keep movements around the sterile field to a minimum. Make sure that air currents are kept to a minimum. Avoid drafts and fans.
  12. Do not reach across a sterile field. It is advisable to stand with your hands clasped in front of you above waist level when idle.
  13. Avoid spilling anything wet on the sterile field. Areas that become wet allow microorganisms to migrate into the sterile area.
  14. Wet areas are considered contaminated and must be covered with sterile towels or the sterile field must be dismantled and set up again.
  15. Outer wrappings of sterile packs are not sterile and must be opened by someone not wearing sterile gloves.
  16. The flaps of the sterile pack must be opened away from the body. Be careful not to touch the inner wrappings with your clothing, your hand, or any other object.
  17. Once the outer wrapping is opened, the inner pack may be added to the sterile field by placing it in the center of the field. Do not let the outer wrapping touch the field.
  18. Instruments in peel packs may be opened by peeling downward and allowing the article to be picked out by someone wearing sterile gloves. Or instruments can be slid from the pack onto the sterile field.
  19. One inch around the perimeter and below the sterile field is considered non-sterile.
  20. Unused, opened sterile supplies must be

discarded or resterilized.	
<p><b>Objective 9</b>  <b>Describe and demonstrate how to set up a sterile field.</b></p> <p>A. Setting up a sterile field</p> <ol style="list-style-type: none"> <li>1. Clean and disinfect tray or mayo stand.</li> <li>2. Tray must be above waist level.</li> <li>3. Wash hands.</li> <li>4. Assemble necessary material.</li> <li>5. Check instrument pack <ol style="list-style-type: none"> <li>a. Correct type.</li> <li>b. Date and sterilization indicator.</li> </ol> </li> <li>6. Place sterile pack on disinfected tray or a Mayo stand.</li> <li>7. Unfold outermost fold away from yourself.</li> <li>8. Unfold sides of pack outward, touch only areas that are on underside of sterile field.</li> <li>9. Open final flap toward yourself.</li> <li>10. Arrange instruments using sterile transfer forceps or don sterile gloves after a surgical scrub and arrange items on the sterile field.</li> <li>11. To add liquids to the sterile field <ol style="list-style-type: none"> <li>a. To assure correct solution, check the bottle label.</li> <li>b. Remove the lid and either keep it in the hand or place it on a hard surface with the lid downward without contaminating the sterile field.</li> <li>c. Palm the label.</li> <li>d. Pour liquid six inches above the sterile field.</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>A. Lecture/Discussion</li> <li>B. Assigned Readings</li> <li>C. Once the sterile field is set up by student, have him/her demonstrate pouring bottle of solution into a sterile cup.</li> </ol>