

Component III: Clinical

Module D: Minor Office Surgery

Topic 2: Preparing and Maintaining a Sterile Field

Statement of Purpose

To prepare the learner with basic knowledge and skills necessary to prepare and maintain the surgical area.

Student Learning Outcomes

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

1. Spell and define the key terms.
2. Identify the most frequently used instruments in performing minor surgeries.
3. Demonstrate the techniques used in setting up and maintaining a sterile field.
4. Prepare a sterile pack.

Terminology

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| 1. Autoclave | 11. Onychectomy |
| 2. Autoclave tape | 12. Pounds per square inch (PSI) |
| 3. Curettes | 13. Retractor |
| 4. Debridement | 14. Staple |
| 5. Disinfection | 15. Sterilization |
| 6. Hemostats | 16. Sterilization indicator |
| 7. Incision and Drainage (I and D) | 17. Suture |
| 8. Laceration | 18. Vasectomy |
| 9. Mayo stand | |
| 10. Occupational Safety and Health Administration (OSHA) | |

References

1. Kronenberger, J., Southard D. L., & Woodson, D. (2012). *Comprehensive Medical Assisting* (4th 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>Objective 1 Spell and define key terms.</p> <ul style="list-style-type: none"> A. Review the terms listed in the terminology section. B. Spell the listed terms accurately. C. Pronounce the terms correctly. D. Use the terms in their proper context. 	<ul style="list-style-type: none"> A. Games: word searches, crossword puzzles, Family Feud, Jeopardy, bingo, spelling bee, hangman, and concentration. B. Administer vocabulary pre-test and post-test. C. Discuss learning gaps and plan for applying vocabulary.
<p>Objective 2 Identify the most frequently used instruments in performing minor surgeries.</p> <ul style="list-style-type: none"> A. Cutting and dissecting instruments <ul style="list-style-type: none"> 1. Have sharp edges used to cut or incise skin and tissue. <ul style="list-style-type: none"> a. Scalpels. b. Scissors. c. Curettes. B. Grasping and clamping instruments <ul style="list-style-type: none"> 1. Used to grasp and clamp tissue, hold surgical materials, remove foreign objects or apply pressure and close off blood vessels. <ul style="list-style-type: none"> a. Forceps. b. Hemostats. c. Towel clamps. C. Retracting, dilating, and probing instruments <ul style="list-style-type: none"> 1. Used to hold back wound edges or incisions, enlarge or clear body openings, body cavities or wounds. <ul style="list-style-type: none"> a. Retractors. b. Dilators. c. Probes. D. Suturing instruments <ul style="list-style-type: none"> 1. Used to introduce suture materials into and retrieve them from the wound. <ul style="list-style-type: none"> a. Suture needles. b. Needle holders. E. Syringes and needles <ul style="list-style-type: none"> 1. Used to inject anesthetic solutions. 2. Used to withdraw fluids and obtain biopsy specimens. F. Instrument trays and packs <ul style="list-style-type: none"> 1. Laceration repair tray. 2. Laceration debridement tray. 3. Incision and drainage tray. 4. Foreign body or growth removal tray. 5. Vasectomy tray. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Show pictures of instruments or actual instruments available and ask students to identify

<ul style="list-style-type: none"> 6. Suture removal tray. 7. Staple removal tray. 8. Onychectomy (nail removal) tray. 	
<p>Objective 3 Demonstrate the techniques used in setting up and maintaining a sterile field.</p> <ul style="list-style-type: none"> A. Creating a sterile field <ul style="list-style-type: none"> 1. Clean and disinfect tray or mayo stand. 2. Wash hands. 3. Assemble necessary material. 4. Check instrument pack <ul style="list-style-type: none"> a. Correct type. b. Date and sterilization indicator. 5. Place sterile pack on disinfected tray or a Mayo stand. 6. Tray must be above waist level. 7. Unfold outermost fold away from yourself. 8. Unfold sides of pack outward, touch only areas that are on underside of sterile field. 9. Open final flap toward yourself. 10. Arrange instruments using sterile transfer forceps or don sterile gloves after a surgical scrub and arrange items on the sterile field. B. Performing a surgical scrub <ul style="list-style-type: none"> 1. Remove all jewelry and roll up sleeves to the elbow. 2. Assemble materials. 3. Turn on faucet using the foot or knee pedal. 4. Wet hands from the fingertips to the elbows. 5. Keep hands higher than the elbows. 6. Under running water, use the sterile brush to clean under your fingernails. 7. Apply surgical soap and scrub hands, fingers, finger webs, wrists and forearms with the scrub sponge, using a firm circular motion. 8. Follow the manufacturer's recommendations to determine the appropriate length of time, usually 2-6 minutes. 9. Rinse from fingers to elbows, always keeping your hands higher than your elbows. 10. Thoroughly dry your hands and forearms with a dry sterile towel, working from hands to the elbows. 11. Turn off the faucet with the foot or knee pedal (a dry clean towel can be used if a foot or knee pedal is not available.) C. Putting on sterile gloves <ul style="list-style-type: none"> 1. Obtain correct glove size. 2. Check the package for tears and expiration date. 3. Perform surgical scrub (see above). 4. Open outer wrapper from gloves, place inner wrapper on clean surface above waist level. 5. Open inner wrapper. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Skill practice in lab D. Role play scenario with sterile field. Contaminate field in various ways to see if students can recognize the break.

6. Make sure cuffs of gloves are closest to your body, finger pointing away. Avoid reaching across sterile inner surface of wrap.
7. Use non-dominant hand to grasp opposite glove, touch only folded edge of cuff.
8. Hold glove at arm's length, waist level, insert dominant hand inside glove, palm facing up.
9. Slide sterile gloved fingers into folded cuff of remaining glove, slip glove over other hand.
10. Adjust gloves as necessary, touching only glove to glove.
11. Unfold each cuff over arm.

D. General assisting procedures for minor surgery using unsterile assistant

1. Wash hands thoroughly.
2. Put on nonsterile gloves.
3. Monitor patient and record results.
4. Assist as needed during the surgery.
5. Add sterile items to tray as necessary.
6. Pour sterile solutions into sterile bowls as needed.
7. Assist in administering additional anesthetic
 - a. Check medication vial (three times).
 - b. Clean rubber stopper, leave alcohol pad on top (document date opened when using a new vial).
 - c. Present sterile needle and syringe to doctor.
 - d. Remove alcohol pad from the vial, show label to doctor.
 - e. Hold vial upside down and grasp lower edge firmly, brace your wrist with free hand.
 - f. Allow doctor to fill syringe.
8. Receive specimens for laboratory exam
 - a. Present opened specimen container to the doctor.
 - b. Replace the cap and label the container.
 - c. Treat all specimens as infectious.
 - d. Place specimen in transport bag.
 - e. Complete requisition form.
 - f. Send specimen(s) to laboratory.

E. General assisting procedures using sterile scrub assistant

1. Perform surgical scrub and put on sterile gloves.
2. Close and arrange surgical instruments on tray.
3. Prepare for swabbing by inserting gauze squares into sterile dressing forceps.
4. Pass instruments as necessary.
5. Swab wound as requested.
6. Retract wound as requested.
7. Cut sutures as requested.
8. After surgery
 - a. Monitor patient.
 - b. Put on clean exam gloves.

<ul style="list-style-type: none"> c. Clean wound with antiseptic. d. Dress wound. e. Remove gloves, wash hands. f. Give patient oral postoperative instructions and release packet. g. Discharge patient. h. Put on clean exam gloves. i. Properly dispose of used materials and disposable instruments. j. Sanitize re-useable instruments, prepare for disinfecting/sterilization. k. Clean equipment and exam room according to OSHA guidelines. l. Remove gloves, wash hands. 	
<p>Objective 4 Prepare a sterile pack.</p> <ul style="list-style-type: none"> A. Pack preparation <ul style="list-style-type: none"> 1. Assemble necessary equipment. 2. Wash hands, put on nonsterile gloves. 3. Place square of paper or double thickness of muslin on table with one point toward you. Paper or fabric must be large enough to allow all four points to cover instruments or equipment and provide overlap. 4. Place each item to be wrapped in center area of the paper or fabric "diamond". 5. Items used together should be wrapped together. 6. Surfaces should not touch. 7. Arrange instruments placed in open position. 8. Check to make sure all items are working properly. 9. Wrap small piece of paper, muslin or gauze around delicate edges or points for protection. 10. Place sterilization indicator inside the pack with the instruments according to manufacturer's guidelines. 11. Fold bottom point of diamond up and over instruments and over center. Fold back small portion of point to use as handle for opening. 12. Fold right point of diamond to center. Fold back small portion of point to use as handle for opening. 13. Fold left point of diamond into center, fold back small portion for handle. Pack should resemble open envelope. 14. Grasp the bottom of the envelope that holds covered instruments; fold this portion up, toward top point. Fold top point down over pack, snug not tight. 15. Secure pack with autoclave tape, fold small portion of tape back on itself to form quick opening tab. 16. Label pack (with waterproof felt tip pen) with your initials and date, list contents and identify syringe size, if applicable. 17. Put pack aside for loading in autoclave. 	<ul style="list-style-type: none"> A. Lecture/Discussion B. Assigned Readings C. Demonstrate and have students return demonstration. D. Practice in skills lab.

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| <p>B. Running a load through the autoclave</p> <ol style="list-style-type: none">1. Wash hands, put on gloves.2. Place packs on their edges, place jars and containers on their sides in autoclave.3. Place lids for jars and containers sterile sides down.4. If plastic items included make sure no other items lean against them.5. If the load is mixed (containing both wrapped packs and individual instruments), place the instruments on the bottom, under the wrapped pack on the bottom.6. Close door, start unit and run according to the manufacturer's recommendations.7. Start timer when recommended pressure and temperature are reached.8. 250 degrees Fahrenheit and 15 PSI.9. At the end of steam cycle, but just before start of drying cycle open the autoclave door $\frac{1}{4}$ to $\frac{1}{2}$ inch.10. Dry according to manufacturer's recommendations.11. Unload autoclave after drying cycle finished. Wear mitts to protect from burns. Use sterile forceps to unload individual objects.12. Do not unload any packs or instruments with wet wrappings.13. Look for moisture, underexposed sterilization indicators and tears.14. Take packs to storage.15. Individual items that are not required to be sterile should be placed in clean containers.16. Sterile individual instruments should be placed in sterile containers and covered tightly.17. Do not place any unloaded items in an overly cool location.18. Remove gloves and wash hands. | |
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