

Performance Evaluation in the Laboratory

By

Tammy Mangold, MEd, CST/CFA
Director Surgical Technology, Rolla Technical Center

The laboratory is one of the most important components of the surgical technology curriculum. It is here that the basic concepts are learned and practiced. Under the ideal setting, students can practice everything they will encounter in the real operating room. They can gain the confidence they need to go to clinicals and enter the sterile field and step up to the operating room table. That concept of teamwork has been instilled into their heads.

What should be evaluated?

When thinking about what should be evaluated, begin with the current edition of the *Core Curriculum for Surgical Technology*. There are a few things about pharmacology that are best evaluated in the laboratory. Students need to practice mixing medications. This is something that they may be asked to do. Thrombin, for example, is available in a system where it is reconstituted on the sterile field. Surgical Technologists also will be receiving drugs from the circulator. They need to practice this before going to the clinical site. Demonstrating what to do with the drug once they have it in their hand is important also. Students should show you how to label the medications, how to draw them up in a syringe, how to pass a needle and syringe to a surgeon. The use of contrast media is an important concept to demonstrate. Have students practice getting all of the air bubbles out and working with several syringes of the same color fluid. These are all basic, entry level, surgical technology duties.

There is one anesthesia concept that should be practiced and evaluated in the laboratory. Sellick's maneuver (cricoid pressure) is important. If the surgical technologist is not sterile and the circulator is busy, the Surgical Technologist may be asked to perform this procedure.

The Surgical Technologist may interact with the patient preoperatively. Students should demonstrate that they can properly transport a patient in both a stretcher and a wheelchair. What does the Surgical Technologist do when they get to the floor to transport a patient? This may be something you want them to demonstrate to you. How do they identify the patient? How do they identify themselves to the patient? Once in preop holding, shaving is an important concept to demonstrate. After the patient gets to the operating room, positioning and prepping are both important concepts to demonstrate. Most Surgical Technologists will be asked to perform or help with these tasks. Urinary catheterization should also be evaluated in the laboratory. Some hospitals allow the Surgical Technologists to place catheters. Many times, however, the Surgical Technologists will be performing this task from the sterile field, such as in gynecological procedures and urological procedures. All Surgical Technologists should learn how to take Vital Signs. Some departments, such as labor and delivery, require their Surgical Technologists to take and record vital signs. As an instructor you should evaluate even the simplest things, such as transporting the patient from the stretcher to the operating room bed. Remember most of these concepts are second nature to the experienced practitioner, but to the student they are all foreign.

The following list is important for the student to know how to perform before they enter the operating room suite. These are items performed preoperatively and intraoperatively:

- Wearing proper attire
- Setting up the room with the proper furniture, equipment, supplies and instruments.

- Opening sterile supplies—peel packs, wrappers and rigid containers
- Hand scrub
- Gowning and gloving self and others
- Both open and closed gloving
- Removing instruments from the sterilizer—both cold and hot
- Draping a mayo stand
- Counting — preoperative and intraoperative
- Setting up mayo stands
- Setting up back tables
- Assembling supplies, instruments and equipment.
- Organizing supplies, instruments and equipment
- Putting knife blades on handles and removing the blades
- Loading and unloading suture needles—both left handed and right handed
- Load suture ties on passes
- Pass suture ties—reel, free, on a pass
- Fill an asepto
- Reload intestinal staplers
- Drape the patient
- Passing instruments—knives, scissors, pickups, ringed instruments, retractors
- Bowel technique
- Applying dressings

- Removing gown and gloves

Postoperatively, the following items should be evaluated:

- Room clean up
- Decontaminate instruments
- Packaging of instruments and supplies—peel packs, wrappers, rigid containers
- Sterilization of instruments—both cold and hot

It is also important for students to identify a variety of supplies, instruments and equipment. These should include:

- Sutures
- Needles
- Staplers
- Sponges
- Syringes
- Instruments
- Different types of drapes
- Prepping solutions
- Suctions

These are just a few of the basic items that should be identified. You should include anything you have that you feel is important for them to succeed at your clinical sites.

The above things are the basics to function as an entry level Surgical Technologist. As an instructor, you should include anything that will help the student

succeed in your area. You may have some hospitals that place an emphasis on something that other places around the country place very little value on.

What are the best tools to evaluate laboratory skills?

There are several ways to evaluate the skills. You can do both teacher and peer evaluations. After demonstrating the technique, let the students work in small groups. Students will evaluate each other in the group and offer suggestions to each other so that the entire team can succeed. Another way to do peer evaluations is to videotape the return demonstrations. Classmates and instructors can evaluate the videos and give constructive feedback to the students.

When it comes to the final evaluation of the competencies, several options are available. You can continue to allow the student to demonstrate the competency until they master it. They cannot move to the next competency until they achieve the previous one. Before going to clinicals, all competencies must be met. This allows students to work at their own pace. It is more time consuming for the instructor. A simple check-off list is sufficient for the documentation tool. The textbook written by AST, *Surgical Technology for the Surgical Technologist: A Positive Care Approach*, has some good tools in their instructor's manual that fit this format.

Another way the instructor can evaluate the laboratory skills is to give a grade for each competency according to when they accomplish the task. An example is passing a needle to the surgeon. The instructor would demonstrate it. Students would practice. When a student thinks they have mastered the task, the instructor will evaluate them. If everything is performed correct the first time, the student receives an "A". If they do anything wrong, such as getting the suture caught in the surgeon's hand, they must go

and practice some more. If they get everything right on the second try, the student will receive a “B” for the task. You can substitute letter grades for percents or points. I have found that the point system works the best. The concept will be the same. This gives the student something to strive for.

Students should master all of your competencies before going to clinicals. They are too important. All steps of each competency should be mastered completely. Students may be able to wash their hands sufficiently. But if they leave out even one step, such as cleaning underneath the nail bed, it could be detrimental to the patient safety.

I have included an example of a competency sheet using the point system. You can create this in Microsoft Word using the “table” tool. You can find competency sheets already written in the Instructors Manual for the Surgical Technology book I mentioned above. Delmar Thompson Learning publishes this book.

The things listed here are by no means complete for every school. The basic concepts are listed above. You must evaluate them to fit your needs. Begin with the resources you have available and build from there.

Basic Handwash

Student name: _____

Date mastered: _____

Instructor name: _____

Grade: _____

Procedure	1 st try 20 pts. pos.	2 nd try 10 pts. pos.	3 rd try 5 pts. pos.	Comments
Date attempted:				
1. State the purpose of the handwash				
2. Equipment and supplies are assembled				
3. PPE in place properly				
4. Jewelry removed				
5. Water turned on				
6. Wet hands and arms				
7. Apply soap to skin				
8. Interlace fingers				
9. Use nail cleaner/brush				
10. Scrub fingertips to 2" above elbow				
11. Proper duration of scrub				
12. All surfaces scrubbed				
13. Rinse				
14. Turn off water				
15. No other surfaces touched with hands and arms				

Comments: