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A Process To Credential The Registered Nurse As First Assistant During Surgery

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A PROCESS TO CREDENTIAL

THE REGISTERED NURSE AS FIRST ASSISTANT

DURING SURGERY

by
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AUTHORSHIP STATEMENT

I hereby testify that this paper and the work it reports are entirely my own. When it has been necessary to draw from the work of others, published or unpublished, I have acknowledged such work in accordance with accepted scholarly and editorial practice. I give this testimony freely, out of respect of the scholarship of other workers in the field and in hope that my own work, presented here, will earn similar respect.

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ABSTRACT

A Process to Credential the Registered Nurse as First Assistant During Surgery.

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The evolution of contemporary medical practice over the past 30 years is extraordinary. This researcher has observed medical practitioners with many years of preparation in the role as first assistant to the surgeon. When phrases as "cost effective and cost containment" were verbalized it was obvious radical changes were to be made. As time went by non-physicians were employed as first assistants. These individuals attained certification by going through rigorous training programs for surgical assistants. Registered nurses were assigned to assist the surgeons in surgery. An on-the-job training was taking place. Unfortunately, only the practical application of surgical assisting was being emphasized with little or no theory being taught. This practicum is designed to credential those professionals as first assistants. Appendices include first assistant survey by state, affiliation agreement, RN first assistant study guide, pre/post test, and evaluation tools.

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CHAPTER 1

Purpose

Background

The practicum took place in a geographical location housing the usual commercial and entrepreneurship businesses plus a community college and several area hospitals, proprietary and voluntary.

The community college is a publicly funded comprehensive institution charged with the responsibility to provide opportunities for general and specialized education to members of the community. The college was authorized by the legislature and became the state's first educational facility to incorporate a multifaceted learning institution. It was divided into three divisions: college credit, adult education and a vocational school. Although one president administered the divisions, they essentially functioned as separate entities under the county school system. The 1968 legislature combined the divisions into a single administrative unit under a District Board of Trustees independent of the county school system. In the mid-70's, the single instructional division was divided into the Main Campus and the Open College. The Open College was created to meet the community's diverse and

expanding needs for adult, community services, grant funded and cooperative extension education. By 1980, the Open College evolved into a matured delivery agent for extension and special programs serving several satellite areas in two counties. During this time, the nontraditional student (older, part-time), emerged as a new majority and the population explosion that occurred simultaneously contributed to the college's rapid growth. A survey revealed that nationally 61 percent of two-year college students were part-time, older, married or divorced, working parents, single heads of households or establishing their own households. This trend increased demands upon the college's system. By late 1980, the college was asked to serve not only 8,600 FTE students but 40,000 adults as well.

Main campus facilities have grown in the past decade to accommodate the community's increasing educational demands with major remodeling taking place to make room for computers, additional staff and support services. The college also offers adult high school, occupational and preparatory training courses, classes sponsored by the college's women's center and the county drug abuse council.

This college has emerged from a small campus into a multi-site campus annually serving 60,000 to 70,000 residents of the two counties. College curricula reflect the varied needs and participation of the entire community. Educational programs are planned carefully to meet these changing and varied needs.

The college works with local businesses and industries to develop occupational programs to ensure qualified employees. This close relationship between industry and training programs is successful because employers recognize the graduates of this community college as highly trained, responsible individuals. Over the years of existence, the college has matured into a responsible and responsive institution of higher learning that provides the community with quality academic programs, specialized occuptional training, cultural experiences, informational services and programs which enrich the quality of community life.

In addition to the philosophical and legal requirements dictated by the college's involvement with business and industry, a public institution such as the college, also must strive to reflect the environment within which it operates. This includes listening to and, if warranted, responding to the political opinions

of its constituents. In recent years the public renewed its demand that educational institutions operate quality programs in all academic, occupational, and vocational areas. With this in mind the college continued to emphasize quality educational programs.

The college serves as the entry point for post-secondary education for the consumers of the two counties. Students who plan to continue with higher education can receive the first two years of college education at this community college. Occupationally-oriented programs for those students who wish to pursue work in a vocational, technical, business, or semi-professional field are also offered. Programs for basic and adult education which can lead to a high school diploma or its equivalent are available as well as programs for those people for advancement in a current occupation or to enter a new area of employment. Trends toward quality assurance and quality control have surfaced. Industry and technologies are looking to credentialed individuals in their fields for potential employees.

The college articulates freely with local high schools, state universities, colleges, community agencies and employers for the benefit of students and

has recently constructed a joint use facility for a local four-year university and the college; once again to offer to the community additional opportunities in education. Interaction with community agencies and employers enhance job placement services for students.

Staff curriculum and resource development planning services coordinate the development, review and improvement of college courses and programs to insure quality learning. Course and program development at the college is very systematic. A specialized curriculum process is used to identify the tasks which an occupational program graduate will need for successful employment. Tasks from the overall chart are sequenced and developed into appropriate learning outcomes for courses. Using this approach insures the relationship of courses to their programs and results in a well-articulated program map.

The occupational placement and follow-up evaluation process requires that each program analyze the employer and graduate feedback. This information addresses the relevance of subject matter and course objectives to the work responsibilities of graduates. Faculty in the programs analyze this data annually and make appropriate program curriculum changes.

In the health, human and public service programs, assessing students' performance occurs through audiovisual laboratory activities, individual tests, skills evaluation and field observation. The institution evaluates its effectiveness in these programs through state board licensing and accrediting bodies, program review by the state facilities for education, national and regional accrediting bodies, and through placement and follow-up activities.

Problem Statement

This practicum was initiated to create a credentialing process for registered professional nurses in the nursing practice of first assisting the surgeon during surgical intervention. Local health care facilities employ registered nurses as circulating and/or scrub personnel for which they have been educated. As the need arose, these professionals were utilized as first assistants in the surgical suite. Every surgeon uses a first assistant to do a surgical procedure. In the past, first assistants were physicians. In today's society, it is no longer cost or time effective to continue with this practice; hence the utilization of unqualified personnel.

Medicolegal reasons found not only the hospital in jeopardy, but the registered nurse's license as well. This was due to the fact that these professionals were not adequately trained to assist the surgeon during surgical intervention. Along with medicolegal reasons, poor patient care and feelings of inadequacy amongst the professionals due to the lack of proper credentialing was on the rise. In order to effect quality patient care, excellence in nursing practice and qualify the professional, this program aimed towards credentialing was instituted. The Association of Operating Room Nurses (AORN) official statement on RN First Assistants is as follows:

> The safety and the welfare of the patient should be given primary consideration in the selection of a first assistant in surgery. The American College of Surgeons has historically supported the concept that the first assistant at the operating table should ideally be a qualified surgeon or a resident in an approved surgical training program.

Recognizing that this was not always possible, the AORN House of Delegates in 1979 approved the following statement:

> However, in the absence of a qualified physician, the registered nurse who possesses appropriate knowledge and technical skills is the best qualified non-physician to serve as the first assistant.

The American College of Surgeons issued a statement to the Association of Operating Room Nurses regarding the qualifications of the first assistant in the operating room.

> The first assistant to the surgeon during a surgical operation should be a trained individual capable of participating and actively assisting the surgeon to establish a good working team. The first assistant provides aid in exposure, hemostasis, and other technical functions that will help the surgeon carry out a safe operation with optimal results for the patient. This role will vary considerably with the surgical operation, specialty area, and type of hospital.
>
> In some hospitals in this country, there may not be specifically trained and readily available surgical assistants in the operating room. The first assistant's role in such institutions has traditionally been filled by a variety of individuals from diverse backgrounds. Designation of an individual most appropriate for this purpose within the bylaws of the medical staff of the hospital is the responsibility of the surgeon.
>
> The American College of Surgeons supports the concept that, ideally, the first assistant to the surgeon at the operating table should be a qualified surgeon or resident in a surgical educational program approved by the appropriate residency review committee and accredited under the Liaison Committee on Graduate Medical Education.
>
> Attainment of this ideal in all hospitals is recognized as impracticable. In some circumstances it is necessary to utilize appropriately trained nonphysicians to serve as first assistants to qualified surgeons. Surgeon's assistants (SAs) or physican's

> assistants (PAs) with additional surgical training may be employed if they meet national standards. These individuals are not authorized to operate independently. Registered nurses with additional specialized training may also function as first assistants to the surgeon at the operating table in those situations or hospitals where more completely trained assistants are not available. By doing so, however, the size of the operating room team should not be reduced; the assigned nurse should function solely as the first assistant and not also as the scrub or instrument nurse.
>
> Practice privileges for those acting as first assistants should be based upon verified credentials reviewed and approved by the hospital credentialing committee. Registered nurses choosing to act as first assistants must be within the defined limits of their state nursing practice act.

The Joint Commission on Accreditation of Hospitals (JCAH) loosely stated (to be interpreted by each facility):

> All personnel shall be prepared for their responsibilities in the special care unit through appropriate orientation, inservice training and continuing education programs.

The Florida State Board of Nursing has adopted the AORN official statement on RN First Assistants.

Outcome Objectives

By creating a learning process to educate registered nurses, this researcher found the problem of non-credentialed personnel could be eliminated. In this manner excellence in the delivery system of patient care continues to be maintained.

Changes that were addressed necessitated additional education for the registered nurse who participated as first assistant during surgical intervention. A one week intensive didactic program coupled with nine weeks internship at affiliating facilities accomplished the goal of credentialing.

The following are the objectives of the program which were verified and measured by a written evaluation tool of competencies performed and accomplished:

Learning Objectives. The student will be able to:

1. Demonstrate application of principles of aseptic technique and infection control.
2. Describe anatomy and physiology related to specific surgical procedures.
3. Define the three types of wound healing.
4. List six factors which influence wound healing.
5. Discuss the legal implications of the registered nurse as first assistant.
6. Demonstrate recognition of surgical hazards and initiate appropriate corrective and preventive action.

7. Compare and contrast the use of anti-microbial agents in prophylaxis and infection.
8. Discuss the value of laboratory tests to determine hemostatic irregularities in the surgical patient.
9. Compare and contrast non-absorbable and absorbable suture material.
10. Discuss the absorption rate of suture material as related to the body tissue it contacts.
11. Describe the use of suture material relating to tissue.
12. Discuss the tensile strength and size of suture materials.
13. Describe the types and use of suture materials.
14. List types and uses of surgical needles.
15. Prep the surgical area with appropriate disinfecting agent.
16. Demonstrate three methods of local hemostasis.
17. Drape the operative area.
18. Apply clamps to maintain hemostasis.

19. Sponge and suction to maintain a clear operative field.
20. Select retractors considering the operative site and body tissue.
21. Retract to obtain maximum exposure and minimum trauma to the body tissue.
22. Demonstrate ligating superficial bleeders.
23. Cut sutures considering surgeon's preference.
24. Demonstrate suturing techniques in the closing of layers of body tissue.
25. Prepare the incisional area for dressing considering the procedure.
26. Apply the dressing for incisional site.
27. Demonstrate positioning patient for surgical procedures.

CHAPTER 2

Research and Solution Strategy

Since credentialing registered nurses to first assist was a relatively recent development, the computer search offered little information regarding the educational process. Leske and McKnight (1985) suggested the following approach for planning and implementing a course for first assisting for registered nurses.

> A comprehensive assessment was obtained to gain an accurate view of the program's needs. Three groups' needs were assessed: physicians, nursing staff, and hospital administrators.

This writer also investigated a plan of action. Several area surgeons were surveyed. The results indicated the need existed. The surgeons were interested and supportive of the undertaking, evidenced by their willingness to participate in the educational process. This researcher was able to identify further needs for implementation of the program by scrubbing in on a variety of surgical procedures with one of the surgeons who would become a preceptor. In this manner important areas of skills performance were acknowledged and became a part of the learning process.

Again Leske and McKnight (1985): "In the early stages of planning the course, we followed guidelines set forth by hospital policy." Discussion with Managers of Surgical Services revealed the need for revisions and addendums to both hospital policy and job descriptions. Leske and McKnight state:

> We asked staff members to keep notes regarding their fist assistant experiences during the first month of implementation of the program and asked each participant for ways to improve the course. Within one month, we held a follow-up meeting with staff to solve any problems.

This writer devised an evaluation tool (Skills Inventory) listing the competencies needed for credentialing (Appendix A:28). A skill was practiced in the lab, and evaluated by the instructor. The skill was demonstrated by the student during surgical intervention and evaluated by the surgeon preceptor.

Nancy Davis, RN, is a nonphysician surgical assistant and family nurse practitioner. In the December 1980 issue of the AORN Journal her article entitled "Charting a Course for the First Assistant," uncovered her difficult journey towards the credentialing process she painstakingly strove for:

> The official statement on first assisting approved by delegates at the 1979 AORN Congress in St Louis included the following statement:

> 'The nursing process is the core of operating room nursing as defined in the perioperative role. Since the role and function of the first assistant have not been defined by medicine, we believe it is premature to include the functions of the first assistant within the intraoperative phase of the perioperative role. However, in the absence of a qualified physician, the registered nurse who possesses appropriate knowledge and technical skills is the best qualified nonphysician to serve as the first assistant.'
>
> Why did I, as an OR nurse, think I could assist during surgery? Historically, OR nurses on occasion have stepped into the assistant role. Sometimes this occurred because the physician's assistant was detained, left unexpectedly, or simply was unavailable. Surgeons are willing to teach and delegate assistant responsibilities to those OR nurses who are interested and capable. (Davis, 1980)

Ms. Davis began specializing in cardiac surgery in 1964 and gained extensive experience and knowledge about this speciality. When it comes to judgment based on education she states:

> The judgment needed as an assistant, develops when one can apply knowledge gained through both education and experience in such fields as anatomy, physiology, microbiology, pharmacology, and behavioral sciences.

She describes motor skills as:

> Tissue handling, suturing, and tying sutures as examples of <u>skills</u> assistants must possess. These types of skills often are acquired through experiences that provide the theoretical background plus the opportunity to practice.

When relating to the role of the nurse Ms. Davis offers the following:

> I have no difficulty identifying the nursing components of my practice. I agree with the statement of the AORN Project 25 Task Force, which developed the perioperative role, that the registered nurse who functions only in an assistant position is not practicing nursing. Acting only as an assistant to the surgeon would mean the nurse has no responsibility for patients or involvement with them during preoperative and postoperative phases.

As one can determine from this statement, the importance of functioning within the realm of nursing can become a tenuous situation. It is essential to always keep the nursing process in mind.

Ms. Davis continued to investigate aspects of the credentialing process. Legal implications relating to the nurse practice act were managed by the State Board of Nursing. She had to carefully outline her proposed role for the State Board of Medicine.

Following approval from the State Board of Medicine, Ms. Davis obtained professional liability insurance and went on to secure hospital privileges which included the need to establish a job description for the operating room intensive care unit and on other nursing units. These privileges had to be approved by the hospitals surgery committee. At this time, Ms.

Davis needed additional education to assume her increased independent responsibilities. She ultimately received approval and is functioning as an RN First Assistant. Her process took several years to complete.

In April 1987 this researcher attended the Association of Operating Room Nurses' Congress in Atlanta, Georgia. A special interest group on RN first assistant was formed. The discussion included legalities, education and finances. Educational efforts should be made for national offerings. Not all states endorse this perioperative role (Appendix B:31).

This practicum was created to standardized the content of the credentialing process, promote quality assurance, give rise to self-confidence in conjunction with the nurses increased self-esteem, promote a collaborative effort between surgeon and nurse and most importantly, actuate excellence in patient care.

This researcher designed a program for the registered nurse to study theory and applicable skills necessary for first assisting the surgeon during the perioperative period of surgical intervention (Appendix C:37). Until this time, this type of program was not offered at the college level in the Southeast.

An investigation of contemporary writings pertaining to the education of registered nurses in the perioperative role of first assistant has revealed few strategies. The article written by Nancy Davis on "Charting a Course for the First Assistant" establishes that her strategy took several years to accomplish her goal and is not feasible for most to pursue. Leske and McKnight suggest a good inhospital educational plan. This researcher approached this practicum from a collegiate standpoint. An excellent motivational devise for continuing education for the registered nurse was college credit. This program offered nine college credits as well as a certificate of completion, hence, credentialing. With standardization of the educational process comes quality control. All surgical procedures basically progress in a sequential manner, therefore, the registered nurse completing this program could essentially be employed anywhere in the United States where this phase of the perioperative role is accepted. The program offered the students a week of intensive didactic study and then a nine-week clinical internship at an affiliating institution. The participant's hospital of employ became an affiliating facility by contract. (Appendix D:93) This

affiliation agreement was taken in part from an actual document utilized by an area learning institution and has been amended to address the needs of the RN First Assistant Program. After the didactic component, the nurses returned to their places of employment, thus precluding the need for extensive leave. It was in these affiliating facilities the students did their internship.

A political move on the part of this researcher in writing this program was to create FTE's for the college. The program was cost effective because allied health labs were utilized for skills practice. Area hospitals became affiliating facilities. This researcher had contacted several surgical supply company representatives who were supportive and participated in the skills practice aspects of the program.

CHAPTER 3

Method

The target group for this practicum was registered nurses from area hospitals interested in the credentialing process to become RN first assistants. The student enrollment was ten. These nurses had the following validated by a statement from their supervisors: at least two years perioperative experience; demonstrated competencies relative to both scrub and circulating roles of the intraoperative phase; were manually dexterous; possessed the ability to perform effectively in stressful and emergency siutations; worked harmoniously as a member of the surgical team, as well as met requirements of statutes, regulations and institutional policies relevant to RN first assistants. Each participant also needed to have taken a course in basic arrhythmias and possess certification in cardiopulmonary resuscitation. A pretest/posttest was given to determine levels of knowledge (Appendix E:98).

Week one was the didactic component of this program governed by the study guide (Appendix C:37). During this session the students covered material pertaining to anatomy and physiology related to

surgical intervention and pathological conditions. Physiology included the study of the body's balance such as electrolytes, fluid composition and acid-base balance. Laboratory practice of skills necessary for the RN to participate as the first assistant during the intraoperative phase also took place during this time. Surgical skills included the study and practice of sutures, hemostasis, knot tying, instrument handling and dressings. Other areas pertinent to pre and postoperative periods included how to establish the patient history and physical assessment. Legal and professional issues were integrated throughout the program.

Weeks two through six continued as a clinical internship. All students returned to their own institutions. These facilities, according to the affiliation agreement with the community college, participated in the learning process of these students by allowing them the clinical experience. This researcher, in conjunction with the administrators of surgical services, contacted area surgeons interested in the development of this program to be preceptors for the students. Each day the students logged the operative procedures in which they participated, the

hours spent in each case and the intraoperative techniques they experienced (Appendix F:115). At the conclusion of each week this researcher met with the individual student to discuss their progress and to make appointments for observational needs.

Learnings discussed pertained to the Skills Inventory (Appendix A:28) as well as how the individual students were feeling about their progress. This researcher also met with the surgeon preceptors and operating room administrators to determine the validity of the program. At the end of the sixth week some of the students felt more experiences were necessary to be able to complete their education for this perioperative role. The surgeons and administrators also felt the need for extending the learning process. During this writer's observation of the students involved in the credentialing process, suturing during closure of wounds, knot tying and the use of the electrosurgical unit needed more hands-on experience. The program was extended for three additional weeks in which time vast improvement was noted.

CHAPTER 4

Results

At the conclusion of the clinical internship, this researcher assessed the students' accomplishments utilizing the objectives of the program and found that all competencies were met at varying levels. A post-test (Appendix E:98), covering cognitive learnings from lectures, clinical applications and self-study required a passing grade of 80 percent. All ten students easily met that criterion. An evaluation of clinical skills was measured with the use of a competency checklist. Logs maintained during the clinical experiences exhibited the wide variety of surgical procedures the students participated in. Finally, the outcome of both the didactic and clinical components of this program were validated by the evaluations each student received by their surgeon perceptors. Further discussion with the managers of surgical service and the surgeon preceptors brought to view the necessity for this credentialing process. The involvement of the different disciplines, i.e., nurses, physicians, and administrators, brought about a camaraderie during this collaborative effort and the nurses could now serve as educated, competent first assistants.

The participants reported their mastery of skills necessary for them to function as first assistants during the intraoperative phase of the perioperative role. They also excitedly vocalized their increased knowledge in regard to asepsis, infection control, surgical anatomy and techniques, handling tissue and instruments, retracting, controlling hemostasis, tying knots and closing wounds. This had given them a new dimension to patient contact.

This researcher must at this time note a possible problem. Some operating room personnel accepted the students in their learning roles, some, however, namely other nurses and surgical technologists, felt these students were performing a function outside the scope of nursing practice. This was due to a great deal of misunderstanding about the role of an RN first assistant. This issue was addressed at the next staff meeting.

CHAPTER 5

Recommendations

This researcher plans to offer this program at least once yearly at the community college. The didactic component of the program can continue to be one week duration but the clinical internship may vary depending on the individual student.

Some of the key factors that will influence the success of this program are the acceptance the program will receive in the affiliating facilities, the students' ability to assimilate in the particular institution and their dedication to the process. Acceptance of the program and the elimination of conflicts in the affiliating facilities can be managed through the educational process by administrators.

Varying degrees of the clinical experience cite the need for additional applications. Suturing, knot tying and use of the electrosurgical unit are competencies that require more clinical applications. This researcher would strongly recommend the availability of qualified personnel to assist students. Participants in the program must be highly motivated to succeed, thereby allowing for many hours of self-practice.

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APPENDIX A

EVALUATION TOOL (SKILLS INVENTORY)

SKILLS INVENTORY

Competency	Lab Practice	Instructor Evaluation	Intraoperative Experience	Preceptor Evaluation	Comments
Positions Patient . supine . lithotomy . prone . lateral					
Preps Skin . abdominal . perineal . extremity					
Drapes Operative Area . towels . plastic incise drape . fenestrated drape					
Clamps Blood Vessel . ties blood vessel . cauterizes blood vessel . stick ties blood vessel . two-hand knot . surgeons knot . one-hand knot . flashes clamp					
Sutures . interrupted suture . over & over suture . vertical mattress suture . horizontal mattress suture . subcuticular suture . skin staples suture					

Skills Inventory - Page Two

Competency	Lab Practice	Instructor Evaluation	Intraoperative Experience	Preceptor Evaluation	Comments
Continuous suture . over & over suture . vertical mattress suture . horizontal mattress suture . locks suture					
Cuts Suture . Sews drain to skin					
Applies Retractors . Self-retaining . Hand held					
Applies Sponges . lap pads . cottonoids . Raytec . peanuts					
Applies Postoperative Dressings					

APPENDIX B

FIRST ASSISTANT SURVEY BY STATE

First assistant survey .

State	Ruling inter-pretation	RN may first assist	Comments
Alabama	yes	yes	May be performed by an RN under the direct supervision of a surgeon. RN must demonstrate specialized skills, should have had at least two years' experience as an RN in the OR as circulating and scrub nurse; should have received formal instruction and supervised practice; proficiency should be attested to by hospital OR committee, credentialing committee, or comparable committee, and should be reviewed at least annually.
Alaska	yes	yes	Refer to RN scope of practice statement, which says nurses who first assist should have additional education and training for that role.
Arizona	no		Not addressed in law and has not been discussed by board of nursing; no first assistant training programs.
Arkansas	no		
California	yes	yes	Considered an expanded role; can be done within "standardized procedures." Practice must be within limits of educational preparation; however, board has not set education or practice standards.
Colorado	yes	yes	Board of nursing has determined that professional nurses are always governed by the nurse practice act and holds each nurse licensee responsible to undertake only those delegated medical tasks that she/he has appropriate education and demonstrated competence to safely perform; to determine the appropriate amount of physician supervision needed to safely execute each delegated medical act; and to ensure this is consistently maintained.
Connecticut	no		Under study
Delaware	no		
District of Columbia	no	yes	Not defined by nurse practice act. Standards and practices defined by institutional policy.

State	Ruling interpretation	RN may first assist	Comments
Florida	yes	yes	Board of nursing has adopted the AORN Official Statement on RN First Assistants
Georgia	no	yes	Board has approved the AORN Official Statement on RN First Assistants. Must be within the limits of education, preparation, demonstrated competence, and institutional protocols.
Hawaii	no	yes	Standards and practice established by institutional policy.
Idaho	yes	yes	RN may first assist when qualified MD not available. Must have documented preparation, knowledge, skills, and supervised practice. Requires permission of hospital credentialing committee.
Illinois	no		Not addressed by nurse practice act. Has requested opinion of state department of registration and education.
Indiana	no		Not addressed by nurse practice act.
Iowa	no		
Kansas	no	yes	Not addressed by nurse practice act. To be determined by hospitals' surgical staff and nursing service.
Kentucky	yes	yes	Within scope of RN practice.
Louisiana	yes	yes	Surgeon must provide physical supervision and accept responsibility for actions of RN. Qualifications must be determined by surgeon and credentialing process of the institution.
Maine	no		Currently under consideration.
Maryland	no	no	Currently under study by board of nursing.
Massachusetts	yes	no	
Michigan	no	yes	Not defined in public health code. Standards and practice established by institutional policy.

State	Ruling interpretation	RN may first assist	Comments
Minnesota	no	yes	Considered a delegated medical function. RN may first assist under medical direction and is accountable for own actions. Board has not set training or credentialing requirements.
Mississippi	no		
Missouri	yes	yes	Dimensions of individual nurse's practice should be based upon nurse's education, knowledge, competence, interest, and in consultation with nursing organizations.
Montana	yes	no	Considered a component of medical practice; not a nursing role.
Nebraska	no	no	Not addressed by nursing practice act.
Nevada	yes	yes	Nursing skills described by AORN Official Statement on RN First Assistants are encompassed by nurse practice act.
New Hampshire	yes	no	RN should not act as first assistant, but in absence of MD, an RN with appropriate skills is best qualified person.
New Jersey	yes	no	Not within the limits of nursing.
New Mexico	no	yes	First assistant should have minimum 5 years experience scrubbing that is documented; employing agency should determine length of time RN should work with MD preceptor; MD should always be present in OR when RN first assists; first assistant should be certified OR nurse; each hospital should establish credentialing in policies.
New York	no	yes	Nurse practice act does not address; considered a matter of hospital policy
North Carolina	yes	yes	It is not in conflict with the nurse practice act for RNs to function as first assistants in surgery in cases compatible with their preparation and experience.

State	Ruling inter-pretation	RN may first assist	Comments
North Dakota	yes	no	A delegated medical act, not nursing as authorized by practice act.
Ohio	yes	no	Not within RNs' scope of practice
Oklahoma	no	yes	Function comes under the medical practice act--physicians may delegate medical functions as long as they provide supervision (directly and in person). Employers are responsible for policies in job descriptions. The nurse can then decide whether the job description is compatible with his/her skills.
Oregon	no	yes	Have no criteria, but can be part of nursing role with additional education, training, and demonstrated competency. Role should be defined and included in institutional policy and procedures.
Pennsylvania	yes	yes	Board of nurse examiners recognizes the AORN Official Statement on RN First Assistants.
Rhode Island	no		Not defined in the nurse practice act. Policy may be established in agencies.
South Carolina	yes	yes	A medical practice; can be done under direction and in presence of physician by person with needed training. Individual institutions must set policy on RNs as first assistants; board has endorsed AORN recommendations.
South Dakota	yes	yes	Physician is responsible and must supervise. Formal education program is required for this role. Means for determining competency level for the RN required. Institutions should have protocols in place.
Tennessee	no		Not addressed in law—standards and practice established by institutions.
Texas	no		
Utah	yes	yes	Not included in nurse practice act. Recommends such practice be controlled by institutional policy, including specific qualifications. Recommends use of RNs be limited to minor cases.

State	Ruling interpretation	RN may first assist	Comments
Vermont	yes	yes	RNs follow guidelines set by AORN and procedures established by institution.
Virginia	yes	yes	RNs may first assist in cases compatible with preparation and experience. Hospitals must have policies with RN qualifications and procedures in which RNs may or may not first assist.
Washington	yes	yes	RN must have necessary education, training, and competence. RN is accountable for carrying out acts as directed by physician.
West Virginia	yes	yes	Tissue handling, providing exposure, using instruments, and providing hemostasis are appropriate functions for the nurse at the operative table during surgical procedures. Nurse should have appropriate education and documentation of that preparation; individual institutions should have policies in place; nurse is responsible to nurse administrator.
Wisconsin	yes	yes	Adequacy of qualifications should be determined by medical staff, hospital administration, and the governing body.
Wyoming	no	no	Each hospital must determine policy, conditions, type of surgery, and required training and credentials for RN to first assist.

APPENDIX C

RN FIRST ASSISTANT STUDY GUIDE

MODULE I: History of the First Assistant Role

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 1.

AORN Journals: 39(3):502-503, 1984
37(3):428-436, 1984

II. Discussion

Purpose:

To provide the RN with the historical background leading to the development of the Registered Nurse First Assistant (RNFA), and the various disciplines working towards the goal of clarification of that expanded nursing role.

Objectives:

At the completion of this module, the RN will be able to:

1. Demonstrate in writing the development of professional nursing as compared to the evolution of medicine and surgery.
2. Discuss the place of the nurse in the operating room.
3. Describe the impact of wartime on the nurse as First Assistant.
4. Identify the course of the expanded role of the professional nurse in the 20th century.
5. Trace the progress of nursing education as it relates to the operating room.
6. Discuss factors influencing First Assistant roles in the past forty years.
7. Describe the Association of Operating Room Nurses' (AORN) role in clarification and qualification of the RNFA.

1.0 Describe the impact of war on medical technology and the need for nurses.

a. Crimean War

b. American Civil War

c. Spanish-American War

d. World War I

e. World War II

f. Korean War

1.1 Discuss the use of student nurses as First Assistant.

1.2 Discuss the use of private duty nurses as First Assistants.

1.3 Describe the education of the nurse for the operating room.

1.4 List factors influencing the First Assistant role from 1945 to 1985.

MODULE 2: The Nurse Practice Act and Expanded Roles

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 2

"AORN Standards and Recommended Practices for Perioperative Nursing." AORN Journal 44(1):169-179, 1985

II. Discussion

Purpose:

To provide the RN with data regarding the criteria to be met to qualify as a practicing professional as mandated by the Nurse Practice Act and with the movement towards advanced preparation or specializaton in nursing.

Objectives:

At the completion of this module, the RN will be able to:

1. State the purpose and the development of the Nurse Practice Act.
2. Describe the purpose and the functions of the State Boards of Nursing.
3. Discuss the evolution of specialization towards expanded nursing roles.
4. Discuss the legalities involved in the "scope of practice."

2.0 State the purpose of the Nurse Practice Act.

2.1 Discuss efforts to protect the public by the following:

a. Dr. Henry Wentworth Ackland

b. Ethel Gordon Bedford Fenwick

c. Florence Nightingale

2.2 Discuss the involvement of the states regarding the Nurse Practice Act.

2.3 Discuss the Boards of Nursing referencing the following:

a. Composition

b. Purpose and function

2.4 Define and describe the following advanced practice roles:

a. Nurse Clinicians

b. Physician-extenders

c. Expanded nursing roles

2.5 Discuss scope of practice concerns

2.6 Discuss qualifications for credentialing.

2.7 Define the role of the perioperative nurse.

2.8 Define the role of the RN First Assistant.

2.9 Discuss the philosophy of the RN First Assistant.

2.10 List the qualifications of an RN First Assistant.

2.11 Discuss concerns regarding institutional licensure.

2.12 Discuss how we can insure quality control.

MODULE 3: Defining the Instructional Role of the RN First Assistant

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 3.

AORN Journals: 39(3):404-405, 1984
32(6):1012, 1980
43(1):262-264, 1986
40(3):436-440, 1986
42(2):195-192, 1985

II. Discussion

Purpose:

To provide the RN with a clearly defined interpretation of the role of the RNFA both legally and professionally, with emphasis placed on the need for the credentialing process.

Objectives:

At the completion of this module, the RN will be able to:

1. Discuss the development of hospital credentialing.
2. Describe the role of the Joint Commission on Accreditation of Hospitals (JCAH).
3. Discuss the position health care facilities take on employment of personnel regarding qualifications.
4. Describe the credentialing process for the RNFA.

3.0 State the position of the American College of Surgeons regarding qualifications of the First Assistant in the operating room.

3.1 Discuss the pitfalls of institutional licensure.

3.2 Outline the history of hospital credentialing.

3.3 State the purpose of the JCAH (Joint Commission on Accreditation of Hospitals)

3.4 Describe what the governing body of an institution needs to approve according to JCAH guidelines with reference to credentialing.

3.5 Describe the application process for practice privileges within a facility for the RN First Assistant.

3.6 List application criteria to be included for the RN First Assistant.

a. Not employed by the institution.

b. Employed by the institution.

3.7 State:

a. AORN's official statement on the RN First Assistant.

b. JCAH's statement.

3.8 List the benefits of employee credentialing by the institution.

3.9 List verified criteria to be maintained by an institution regarding employees.

3.10 List according to the job description (RNFA) on pages 57-58:

a. Responsibility

b. Qualifications

c. Duties

d. Performance

MODULE 4: Microbiologic Basis of Asepsis

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 4.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 5.

Berry & Kohn: Introduction to Operating Room Techniques, 6th edition, Chapters 7, 8.

Groah, L.: Operating Room Nurse: The Perioperative Role, pp. 135-152.

II. Discussion

III. Evaluation: Written examination

Purpose:

To provide the RN with knowledge pertaining to the microbiology of surgical intervention; the fundamentals of aseptic technique; and the transmission of pathogens so as to render a successful outcome goal: an integral wound free of infection.

Objectives:

At the completion of this module, the RN will be able to:

1. Discuss nursing diagnoses that predict outcome goals evidencing the patient's wound free from infection.
2. Describe the pathogenicity of microorganisms.
3. Discuss the history of surgical asepsis.
4. Identify infections patients transmit to the surgical team.
5. List microbes of surgical importance.
6. Describe the use of prophylactic anti-microbial therapy.

4.0 Describe how the RNFA can establish an outcome goal that the patient will have an integral wound free of infection.

4.1 Define and give examples for the following:

a. Endogenous

b. Exogenous

4.2 Discuss the following contributors to surgical asepsis:

a. Fracastoro

b. Van Leeuwenhoek

c. Semmelweis

d. Nightingale

e. Pasteur

f. Lister

g. Bergmann

h. Neuber

i. Fleming

4.3 Define:

a. Pathogenicity

b. Host

c. Antibody

d. Virus

e. Rickettsiae

f. Chlamydia

g. Toxin

4.4 Discuss method of pathogenicity.

4.5 List three occurrences that violate the most effective host barrier—"the skin."

4.6 Discuss microbes of surgical significance:

a. Staphylococci

b. Streptococci

c. Enteric bacilli

d. Pseudomonas

e. Clostridia

4.7 Describe when prophylactic antimicrobial therapy is utilized.

4.8 Discuss antimicrobial actions.

a. Topical

b. Enteral

c. Systemic

d. Postoperative infections

4.9 Describe how the surgical team members are open to infectious diseases transmitted by patients (include preventive measures).

a. Bacterial/fungal

b. Respiratory

c. Type A Hepatitis

d. Type B Hepatitis

e. Non A/Non B Hepatitis

f. Acquired Immune Deficiency Syndrome

MODULE 5: Perioperative Skin Preparation and Draping

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 5.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 5, pp. 76-87 and 95-101.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, Chapter 16.

AORN: Recommended Practices for Perioperative Skin Preparation of Patients

II. Discussion:

Lab Practice
Preps

III. Audiovisual: "VT Preoperative Skin Preparation of Patient

IV. Evaluation: Competency-Based

Purpose

To provide the RN with basic concepts of wound antisepsis by ascertaining a relationship between microbial invasion and creation of microbial barriers.

Objectives

At the completion of this module, the RN will be able to:

1. List nursing interventions derived at through nursing diagnoses for the perioperative skin preparation.
2. Describe the anatomy and physiology of the skin.
3. Discuss the management of hair in the operative area.
4. List criteria for antimicrobial agents for skin preparation.
5. Describe the techniques used in the preparation of the surgical site.
6. Describe the principles and techniques of draping the operative site.

5.0 Define bioburden

5.1 List areas where bacteria are commonly found on the body.

5.2 List four nursing diagnoses that would be considered guidelines for nursing intervention prior to the preoperative skin prep.

5.3 State the purpose of the perioperative skin preparation of the patient.

5.4 Compare and contrast transient and resident bacteria. Give examples.

5.5 List general considerations in the preparation of the skin.

5.6 State, according to AORNs "Recommended Practices for Preoperative Skin Preparation," three objectives to be met.

5.7 Discuss findings associated with infection rates referencing shaved and nonshaved patients.

5.8 List, according to Groah, criteria when choosing an effective antimicrobial agent for skin preparation.

5.9 Discuss the following antimicrobial agents.

a. Iodine / iodine containing compounds

b. Chlorhexidine gluconate

c. Hexachlorophene

d. Ethyl alcohol

5.10 State the four recommended basic steps according to Groah that the preoperative skin preparation should follow.

5.11 Describe a typical abdominal prep.

5.12 List four expected outcome criteria resulting from the skin prep.

5.13 State the purpose of the draping procedure.

5.14 List appropriate nursing interventions for the following:

a. Potential for infection related to contamination of draping materials

b. Potential loss of dignity related to exposure and limited privacy

c. Potential for anxiety related to fear of the unknown when draping materials are placed in a manner that obstructs the patient's visual field and airway when awake.

5.15 State the expected outcome criteria for the following:

a. Potential for infection related to contamination of draping materials

b. Potential loss of dignity related to exposure and limited privacy

c. Potential for anxiety related to fear of the unknown when draping materials are placed in a manner that obstructs the patient's visual field and airway when awake

5.17 Compare and contrast disposable and reusable drapes.

5.18 Describe the application of the following drapes:

a. Towels

b. Plastic incise drapes

c. Fenestrated drapes

5.19 List the principles of aseptic technique for draping.

MODULE 6: Principles of Tissue Handling

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 6.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 7, pp. 142, 201, 205, 41-42.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, pp. 359-363

Brooks: Instrumentation for the Operating Room, 2nd edition, p. 4.

II. Discussion:

III. Clinical Application

IV. Evaluation: Competency-Based

Purpose:

To provide the RN with the principles and techniques of tissue handling to promote the proper healing of wounds.

Objectives

At the completion of this module, the RN will be able to:

1. Describe the course of wound healing.
2. Discuss preventive measures that create the least trauma to tissues resulting in primary wound healing.
3. Classify incisions.
4. Discuss the utilization of accessory instrumentation pertaining to tissue handling.
5. Describe techniques used to achieve primary wound closure.
6. Discuss the need and use of drains.
7. Discribe appropriate techniques utilized in the closure of traumatic wounds.

6.0 Name the four most important concerns in the early part of the 19th century pertaining to surgical intervention. Trace early solutions to these problems.

6.1 Describe the course of:

a. Initial phase of wound healing

b. Second phase of wound healing

c. Third phase of wound healing

6.2 State at least five general conditions depicting interference with wound healing.

6.3 Discuss the necessity for the use of splints during the "remodeling phase" of wound healing.

6.4 List methods that enhance economy of time and motion.

6.5 State the best position for placement of overhead illumination

6.6 Describe how the scalpel is held.

6.7 State and discuss the uses of the following blades:

a. #20

b. #10

c. #15

d. #11

6.8 Describe the use of the following scissors:

a. Metzenbaum

b. Mayo

6.9 Identify the four groups of incisions.

6.10 Discuss the following incisions regarding advantages and disadvantages.

a. Midline

b. Oblique

1. McBurney

2. Kocher

c. Transverse

6.11 Describe placement and proper handling of the Deaver retractor.

6.12 Compare and contrast handheld and self-retaining retractors.

6.13 List the two uses of sponges.

6.14 Describe the handling of sponges to minimize trauma to tissues.

6.15 Discuss the dangers of improperly positioned retractors.

6.16 Describe two methods of isolating the intestines during the surgical procedure.

6.17 State the danger of the use of an intestinal isolation bag and preventive measures to be taken.

6.18 Compare and contrast primary and delayed wound closure.

6.19 Identify the two types of sutures and give two examples of each.

6.20 List the criteria for closure material selection.

6.21 State the most common cause of wound dehiscence.

6.22 Discuss:

a. Methods utilized to decrease microbial invasion of traumatic wounds.

b. Dangers involved in the use of chemicals to decrease the incidence of infection.

MODULE 7: Providing Exposure: Retraction and Retractors

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assista[illegible] Expanded Perioperative Nursing Role, Chapter 7.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition (Index exposing instruments/retractors.)

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition pp. 17, 163, 512, 544, 547.

Groah L.: Operating Room Nursing, The Perioperative Role, p. 286.

Brooks: Instrumentation for the Operating Room, 2nd edition, pp. 5, 7-9, 13, 15, 17-21.

II. Discussion:

III. Lab Practice:

IV. Clinical Application:

V. Evaluation: Competency-Based

Purpose:

To provide the RN with knowledge for selection and application of appropriate instrumentation to provide adequate visualization of the operative site for the surgeon with minimal damage to tissues.

Objectives:

At the completion of this module, the RN will be able to:

1. Discuss methods of providing exposure of tissues for the surgeon.
2. Compare and contrast hand-held and self-retaining retractors.
3. Describe methods of utilizing grasping instruments without damaging tissues.
4. Identify types and applications of tissue forceps for retraction.
5. Discuss how hands are considered ideal retractors.

7.0 List methods of retraction.

7.1 Identify factors to be considered to provide exposure.

7.2 List at least seven factors retraction is based on.

7.3 State the main disadvantages when the assistant continuously utilizes a hand-held retractor.

7.4 Discuss the advantages of using hand-held retractors.

7.5 Discuss unwanted outcomes if retractors are not used properly.

7.6 Discuss how retractors should be held to:

a. Cause the least amount of discomfort to the assistant

b. Provide adequate exposure for the surgeon

c. Prevent injury to the soft tissues or interfere with respirations and/or circulation of the patient.

7.7 Describe when the surgeon should be advised of possible ineffectual retraction.

7.8 Discuss care to be taken when placing self-retaining retractors.

7.9 Describe the types, application of, and use of the following instruments:

a. Tissue forceps

b. Clamps

7.10 State adverse effects resulting from improper use of sponges.

7.11 State:

a. The reason for extending a peanut sponge beyond the end of the clamp.

b. The reason for using minimal pressure when utilizing the peanut sponge.

7.12 Describe the best method of handling "slippery" structures.

7.13 Describe how sutures are used to provide exposure.

7.14 Discuss other methods by which retraction can be accomplished.

7.15 Describe a method to be used to prevent aspiration injuries to tissues when using suction tips.

7.16 Describe the most effective methods in which hands are used to retract tissues.

7.17 State how the assistant contributes to the effectiveness, efficiency and safety of the operative procedure.

MODULE 8: Suturing Techniques and Materials

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 8.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 7.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, Chapter 18.

Ethicon: Wound Closure Manual, 1985, pp. 9-37; 39-61; 78-84.

Ethicon: "Surgical Stapling Techniques"

Groah L.: Operating Room Nursing, The Perioperative Role, pp. 314-339.

II. Discussion:

III. Lab Practice:

Suture Handling
Tying Boards
Suture Manikin
Stapling Techniques

IV. Clinical Application

V. Evaluation: Competency-Based; Written Exam

Purpose:

To provide the RN with basic knowledge of suture materials, application of, and the equipment necessary to assist in the suturing techniques needed during the operative procedure.

Objectives:

At the completion of this module, the RN will be able to:

1. Discuss suture selection and use.
2. Classify suture.
3. Describe the designs and use of the surgical needle.
4. Identify suturing tools and their applications.
5. Describe suturing techniques.
6. Demonstrate suturing techniques.

8.0 Identify who selects suture to be utilized during the surgical procedure.

8.1 Discuss the RNFA's responsibility to the patient prior to the surgical procedure with regard to suture material.

8.2 List the three common uses for sutures during the operative procedure.

8.3 Describe quality controls pertaining to suture materials established by the U.S.F.D.A.

8.4 Discuss criteria to consider with suture selection.

8.5 Compare and contrast absorbable and non-absorbable suture material.

a. Classification

b. Tensile strength

c. Absorption rate

d. Preparation

e. Handling

f. Reactivity

8.6 State major variances among absorbable suture material.

8.7 Discuss how the absorption rate of surgical gut may be delayed.

8.8 Discuss absorbable suture materials.

a. Types

b. Uses

c. Tissue reaction

d. Contraindications

e. Warnings

8.9 List potential problems with surgical gut.

8.10 List the preparation of the following sutures:

a. Silk

b. Cotton

c. Linen

d. Stainless steel

e. Nylon

f. Polyester

g. Polypropylene

h. Polyethylene

8.11 Discuss non-absorbable suture material.

a. Types

b. Uses

c. Tissue reaction

d. Contraindications

e. Warnings

f. Tensile strength

g. Absorption rate

8.12 State selection criteria for surgical needles.

8.13 State the three components of surgical needles.

8.14 Discuss types of eyes of surgical needles.

a. Closed

b. French/split eye

c. Eyeless

8.15 Discuss the criteria for needle eye choice.

8.16 Discuss the shaft of the needle:

a. Configuration

b. Considerations

8.17 Discuss the point of the needle:

a. Design

b. Types

c. Variations

8.18 Describe the instrumentation required for suturing:

a. Needle holders

1. Design

2. Selection

3. Placement of suture needle

4. Grips

b. Suture scissors

1. Design

2. Grip

3. Use

c. Tissue forceps

1. Use

8.19 Discuss needle shapes and uses.

a. Straight

b. Half curved

c. 1/4 circle

d. 3/8 circle

e. 1/2 circle

f. 5/8 circle

g. Compound curved

8.20 Discuss needle points, body shape and applications.

a. Conventional cutting

b. Reverse cutting

c. Precision point cutting

d. Side-cutting spatulated

e. Tapercut

f. Taper

g. Blunt

8.21 Define suturing.

8.22 Describe the action of the hand and wrist during suturing.

8.23 Discuss the following methods of suturing, including use, advantages and disadvantages.

a. Interrupted

b. Continuous

8.24 Describe the action of the assistant while "following a suture."

8.25 Identify the suturing of tissues that are commonly done by the RNFA.

8.26 Discuss the use of the subcutaneous suture.

8.27 Describe the different kinds of skin suturing.

8.28 Describe the subcuticular suture and how it is placed.

8.29 Discuss basic principles of skin suturing.

MODULE 9: Wound Healing

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 9.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 8.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, Chapter 17.

Ethicon: Wound Closure Manual, 1985, pp. 3-8.

II. Discussion:

III. Evaluation: Written examination

Purpose:

To provide the RN with fundamental knowledge of the physiology of wound healing and problems encountered when the body's mechanisms are disrupted to enable the RNFA to manage the surgical wound adequately and appropriately.

Objectives:

At the completion of this module, the RN will be able to:

1. Classify wound types.
2. Discuss the physiology of wound healing.
3. Describe metabolic requirements of wound healing.
4. Discuss wound management.
5. List and discuss wound complications.
6. Discuss the predisposition of certain groups of patients resulting in wound complications postoperatively.

9.0 Classify wounds.

9.1 Describe the healing process of a closed wound (primary intention).

9.2 Discuss the part collagen plays in wound healing.

9.3 Trace the course of open wound healing (secondary intention).

9.4 Discuss the need for skin grafts.

9.5 Describe the course of healing for a graft.

9.6 Describe possible causes of graft failure.

9.7 List factors influencing the appearance of a healed wound.

9.8 Describe the phenomenon of secondary wound healing.

9.9 List the metabolic requirements of wound healing.

9.10 State the chief preoperative concern for all types of wounds.

9.11 Discuss other concerns and measures to be taken for wounds preoperatively.

9.12 State the "driving force" in the prevention of wound infection.

9.13 Identify the purpose of dressings immediately postoperatively.

9.14 Discuss the following early wound complications, including symptoms and possible therapy.

a. Cellulitis

b. Abscess

c. Lymphangitis

d. Tetanus

e. Gas gangrene

f. Meleney's Ulcer

g. Actinomycosis

h. Dehiscence

i. Serum or blood collection

j. Non-healing wound

9.15 Discuss the following late wound complications. Include etiology and management.

a. Incisional hernia

b. Epithelial cyst

c. Suture sinus

d. Hypertrophic scars/keloids

e. Contracture

f. Wound pain

g. Cancer

9.16 Discuss local factors that influence the final result of wound healing.

9.17 Discuss systemic factors that influence the final results of wound healing.

MODULE 10: Using Grasping Instruments in Surgery: A Surgeon's Point of View

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 10

II. Discussion:

III. Lab Practice:

IV. Evaluation: Competency-based

Purpose:

To provide the RN with the fundamental principles of the use of grasping instruments in surgery.

Objectives:

At the completion of this chapter, the RN will be able to:

1. Discuss the application of instruments to provide temporary hemostasis.
2. Demonstrate the mechanical techniques employed to establish temporary hemostasis.
3. Describe the use of instrumentation for retraction of tissues.
4. Demonstrate the application of instruments for the retraction of tissues.
5. Compare and contrast toothed and plain thumb forceps to be utilized on various types of tissues.

10.0 State the three purposes for grasping instruments.

10.1 State how temporary hemostasis is provided.

10.2 Describe the technique used with a hemostat.

a. Grasping a bleeder

b. Once placed

c. After performing its function

10.3 Describe how the following grasping instruments are utilized in retraction:

a. Kocher

b. Allis

c. Babcock

d. Tenaculum

10.4 Discuss how the thumb forceps provides for the extension of one's fingers.

MODULE 11: Providing Hemostasis

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 11.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, pp. 710-13, 207.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, pp. 323-325, 329-338.

Groah L.: Operating Room Nursing, The Perioperative Role, pp. 297-313.

Ethicon: Wound Closure Manual, 1985.

II. Discussion:

III. Lab Practice:

Suture Manikin
Tying Boards

IV. Clinical Application

V. Evaluation: Competency-Based

Purpose:

To provide the RN with knowledge to understand the need for hemostasis during the operative procedure not only to prevent hemorrhage and provide visualization for the surgeon, but to promote good healing of the surgical wound.

Objectives:

At the completion of this module, the RN will be able to:

1. Compare and contrast arterial and venous bleeding.

2. Describe the course of shock due to hemorrhage as observed during surgical intervention.

3. Discuss the chemical, thermal and mechanical methods of hemostasis.

4. Describe and demonstrate the handling of instrumentation utilized to achieve hemostasis.

5. Describe and demonstrate basic knots and knot tying techniques.

11.0 Name three methods by which hemostasis is accomplished during the surgical procedure.

11.1 List three factors that determine the amount of bleeding during the surgical procedure.

11.2 List indications for the possibility of inceased risk of intraoperative bleeding:

a. The patient

b. The procedure

11.3 Discuss the need for preoperative assessment of the patient regarding fluid balance and fluid volume in predicting the body's fluid preservation response to surgical stress.

11.4 Describe a nursing diagnosis related to the possibility of bleeding during or after surgical intervention.

11.5 State how the RNFA can prevent additional intraoperative bleeding.

11.6 Compare and contrast arterial and venous bleeding.

11.7 Describe the observable findings with sudden or rapid blood loss resulting in shock.

11.8 State how blood loss can be determined during the surgical procedure.

11.9 Discuss methods of restoring diminished blood volume due to hemorrhagic shock.

11.10 Identify the two priorities of the first assistant during surgery.

11.11 Discuss the following methods by which hemostasis can be achieved. Give examples and processes:

a. Mechanical

b. Chemical

c. Thermal

11.12 Compare and contrast hemostats according to weight, size, type, length, shape, serrations and tips.

11.13 List two methods for clamp application.

11.14 Describe the application and course of clamping blood vessels prior to being severed to decrease blood loss.

11.15 Describe the method by which a hemostat is removed during vessel ligation.

11.16 Describe the three basic techniques for clamping and ligating vessels within a deep wound.

11.17 Discuss the use and advantages of hemostatic clips and staples.

11.18 State how the first assistant can facilitate the placement of clamps.

11.19 Describe the method by which the clamp is removed from a vessel. From:

a. Behind

b. Above

11.20 Identify the reason for handling the vascular clamp by the shaft rather than the ring handles after placement.

11.21 List and describe the three basic types of knots used in surgery.

11.22 List three techniques used in knot tying.

11.23 List the steps for completing the:

a. Two-handed tie

b. One-handed tie

c. Instrument tie

MODULE 12: Positioning the Patient for Surgery

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 12.

Gruendemann: Alexander's Care of the Patient in Surgery, 8th edition, Chapter 6, pp. 14-15, 333, 708-9, 501, 766, 833-5.

Berry & Kohn's: Introduction to Operating Room Techniques, 6th edition, Chapter 15.

AORN: Standards and Recommended Practices for Perioperative Nursing, 1986.

AORN Journal: "Effects of Surgical Positioning," 30 (2) 219.

II. Lab Practice:

Positioning—Prone, Lithotomy, Reverse Trendelenburg, sitting and Trendelenburg

III. Audiovisual: Film—"Basic Positioning"

IV. Clinical Application

V. Evaluation: Competency-based; Written examination

Purpose

To provide the RN with a thorough knowledge of the principles of positioning, equipment needed, and necessary nursing interventions for the well-being of the patient.

Objectives

At the completion of this module, the RN will be able to:

1. Discuss the relationship between the Registered Nurse First Assistant and the Circulating Nurse.
2. Compare and contrast the role of the Registered Nurse and the "pseudophysician."
3. Discuss the concept of an individual as a holistic system.
4. List the criteria for patient outcome standards for surgical positioning.
5. Describe the SOAP method of nursing assessment for surgical positioning.
6. Identify problematic areas when placing patients in reverse Trendelenburg, prone, Trendelenburg, lateral, lithotomy, and sitting positions.
7. Discuss nursing diagnoses related to problems in positioning the patient for surgical intervention.
8. Describe precautions to be taken when insuring maximum surgical exposure without injury to the patient.

12.0 Discuss the basic need for a thorough perioperative nursing assessment regarding the positioning of the patient.

12.1 Identify the team members responsible for the positioning of the patient.

12.2 Compare and contrast the role of the RNFA and the "pseudo-physician."

12.3 Discuss the relationship between the RNFA and the circulating nurse.

12.4 Discuss why the concept of holism is essential to the RNFA when positioning the patient.

12.5 State Standard I as written in AORN Standards and Recommended Practices for Perioperative Nursing.

12.6 List the criteria that evidence the patient free from compromise as a result of positioning.

12.7 State Standard II as written in AORN Standards and Recommended Practices for Perioperative Nursing.

12.8 Discuss when planning for surgical positioning the advantages of the use of the SOAP method for nursing assessment.

12.9 Describe what problematic areas can be encountered when placing a patient in the reverse Trendelenburg position. Include:

a. Circulatory

b. Respiratory

c. Neurological

d. Musculature

12.10 Describe measures to be taken to minimize any trauma to the patient during positioning.

12.11 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in the reverse Trendelenburg position.

12.12 List the advantages of placing a patient in Trendelenburg position.

12.13 List the disadvantages when utilizing the Trendelenburg position.

12.14 Identify and discuss the one complication the RNFA should be especially concerned with when placing the patient in the Trendelenburg position.

12.15 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in the Trendelenburg position.

12.16 State the potential problems when placing a patient in lithotomy position.

12.17 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in the lithotomy position.

12.18 List potential problem areas when placing a patient in the prone position.

12.19 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in the prone position.

12.20 Describe the method of placing a patient in the prone position according to Smith. Are there options?

12.21 List the potential problem areas when placing a patient in the lateral position.

12.22 Discuss the turning procedure when placing a patient in the lateral position.

12.23 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in the lateral position.

12.24 List and discuss potential problem areas during surgical intervention when placing a patient in a sitting position.

12.25 Describe the method by which the patient is changed from the supine to the sitting position during surgical intervention.

12.26 Describe general precautions based on nursing diagnoses, to be taken during surgical intervention when placing a patient in a sitting position.

12.27 Discuss how through nursing diagnoses and the use of the SOAP method of nursing assessment, the RNFA can evaluate the effects of surgical positioning.

MODULE 13: The RN First Assistant and Collaborative Practice

Learning Activities

I. Reference Reading:

Rothrock: The RN First Assistant, An Expanded Perioperative Nursing Role, Chapter 13.

AORN Journal: 41(1):188-194, 1985
39(3):404-405, 1984
32(6):1012, 1032-1038, 1980
40(3):436-443, 1984
40(2):256-260, 1984
41(1):169-179, 1985
42(5):774-781, 1985
38(3):411-415, 1983

II. Discussion:

Purpose:

To provide the RN with knowledge of collaborative practice to promote the best of care for the patient, improve communication between doctors and nurses, reach for mutual respect and trust, and realize job satisfaction leading to fullest professional potential.

Objectives:

At the completion of this module, the RN will be able to:

1. Discuss the historical background of collaborative practice.
2. State changes in nursing practice influenced by society.
3. Discuss the development of collaborative practice.
4. Identify the elements of collaborative practice.
5. Discuss the considerations and implications of collaborative practice.

13.0 State how nurses were given expanded roles at the end of the 19th century.

13.1 Trace the course of personnel involved in the operating room.

13.2 Describe the significance of the deletion of an OR rotation in nurse's training.

13.3 Describe the effect the AORN has had on operating room nursing practice.

13.4 Discuss the importance of clarifying first assisting during surgical intervention and the perioperative role.

13.5 List the impact of societal happenings that resulted in changes in nursing practice.

13.6 Dicuss the reason for the establishment of the National Joint Practice Commission (NJPC).

13.7 Describe how nurses can be accepted as colleagues by other medical disciplines to contribute to patient care management.

13.8 Compare and contrast former reward systems and the more recent reward system for competent nurses.

13.9 Define primary nursing.

13.10 Discuss complementarity.

13.11 List the RNFA's responsibilities regarding the perioperative phase of nursing.

13.12 Discuss how the RNFA can provide pertinent insights for problem-solving within the surgical suite.

13.13 Discuss the need for joint practice committees.

13.14 State the purpose of joint evaluation of patient care.

13.16 State benefits of integrated patient records.

13.16 Discuss what is meant by "the scope of practice."

13.17 Describe how the RNFA can contribute clinically and be a supportive key faciliator to the non-first assisting nurses.

13.18 Compare and contrast the advantages and disadvantages to management when utililzing the RNFA.

APPENDIX D

AFFILIATION AGREEMENT

LETTER TO ACCOMPANY AFFILIATION AGREEMENT

Date

Address

Dear :

Enclosed please find a new Affiliation Agreement between the hospital and the college.

As indicated, this agreement enables the RN First Assistant Program to utilize your agency for student intern experiences. This agreement will continue until either party desires to modify or cancel it as provided in Sections VIII, IX and X.

We are grateful to you for providing our students with the necessary experience they need to become skilled in their field of study. Please return the enclosed agreement at your earliest convenience. We would like to place the agreement on the next Board Agenda.

Again, we would like to thank you for your support of the RN First Assistant Program.

Sincerely,

Department Chairman
School of Technologies

AFFILIATION AGREEMENT

Date _____

I. PARTICIPATING AGENCIES

The participating agencies in this agreement are the college and the hospital designated herein as the hospital.

II. STATEMENT OF AGREEMENT

This is a mutual agreement between the administration of the college and the hospital that the hospital accept students from the college for supervised learning experiences in RN First Assistant, in accordance with the provision setforth in this agreement.

III. GENERAL PROVISIONS OF THE AGREEMENT

A. The education of the student shall be the primary purpose of the program.

B. The college shall be responsible for the education of the student.

C. The hospital agrees to share in the responsibility for the education of the student through cooperation and assistance of its operating room staff with the faculty of the college and in the guidance and supervision of students.

D. The faculty of the college shall be responsible for selecting learning experiences for the students with the assistance and cooperation of the hospital personnel who are directly involved.

E. The college agrees to comply with the established policies and practices of the hospital.

IV. THE COLLEGE'S RESPONSIBILITY

A. To maintain standards recommended by the Florida State Department of Education.

B. To employ qualified professional personnel as stated in Rules and Regulations of Department of Education.

C. The college faculty shall be responsible for:

1. Selecting rotation assignments and learning experiences in cooperation with the hospital personnel responsible for the particular area of training.

2. Educating the student with the necessary theoretical background and skills to meet the objectives of the program.

3. Maintaining individual records of class and work instruction, evaluation of student competency, and health.

4. Utilizing proper hospital channels and personnel in the planning and conducting of the intern experiences for the students.

V. THE HOSPITAL'S RESPONSIBILITY

A. To make available to faculty and students institutional facilities and clinical services for planned learning experiences in hospital.

B. To assist the instructor to see that the students follow the assigned rotation plan and that they complete the required number of procedures within the allotted time.

C. Departmental personnel will sign an observation form indicating student's participation.

D. To include members of the faculty of the college in staff meetings when policies to be discussed will affect or are related to the program involved.

E. To provide faculty and students with emergency medical care in case of accidents incurred while on duty. All students shall be encouraged to carry health insurance.

F. Students may not take the responsibility or the place of qualified staff.

VI. SCHOOL POLICIES

A. The educational program consists of classroom instruction and laboratory practice and experience in selected learning situations in hospitals and other health agencies. The division and arrangement of time to include the theoretical and clinical learning experiences shall be determined by the school faculty, and instruction shall be based upon the needs of the students for specific learning experiences to meet the objectives of the program.

B. Students shall be assigned for surgical experience. Hours of clinical experience to be determined by the school in cooperation with the hospital.

C. Students will be given holidays as provided for in the college calendar published before each school year begins.

D. RN First Assistant students shall carry liability insurance against injury that they might cause to hospital or property.

VII. REQUEST FOR WITHDRAWAL OF STUDENT

The hospital has the right to request the school to withdraw any student from its facilities whose conduct or work with patients or personnel is not, in the opinion of the supervisor of said hospital in accordance with acceptable standards of performance. The hospital

has the right to deny its facilities to any student which it feels has not behaved in a professional manner. The school may at any time withdraw a students whose progress, conduct or work does not meet the standards of the school for continuation in the program. Final action on student termination is the responsibility of the college.

VIII. **DISCONTINUANCE OF AGREEMENT**

If either party to this agreement wishes to withdraw, it is understood that at least ninety days shall be given by either participating agency, provided that students currently enrolled in the program shall be permitted to complete the course.

IX. **MODIFICATION OF THE AGREEMENT**

Modification of the agreement shall be made by mutual consent of both parties. A memorandum noting the modification shall be attached to this agreement, and shall include the date and signature of parties agreeing to it.

X. **RENEWAL OF AGREEMENT**

This agreement shall be in effect until cancelled by either party. It shall thereafter be reviewed and/or revised and signed when changes are requested by said parties. After review, a letter of acceptance will be sent to parties concerned, if there are no changes.

XI. **COPIES OF THIS AGREEMENT**

Copies of this agreement shall be placed on file and be available to the following:

A. State Department of Education

B. Administrator of the hospital

C. Dean of the School of Technologies

D. Chairperson, RN First Assistant Program

Administrator Hospital	Chairman, College Board of Trustees
Date	President, College
	Date

APPENDIX E

PRETEST/POSTTEST

PRE TEST/POST TEST

1. The legal doctrine Res ipsa Loquitor applies to

   a. invasion of privacy
   b. an employer's liability for an employee's negligence
   c. accountability
   d. injuries sustained by the patient in the O.R. due to negligence

2. The legal doctrine that mandates every professional nurse and technician to carry out their duties according to national standards of care practiced throughout the country is the

   a. doctrine of Res ipsa Loquitor
   b. doctrine of Respondeat Superior
   c. Nurse Practice Act
   d. doctrine of Reasonable Man

3. The doctrine of respondeat superior refers to

   a. the legal terms for assault and battery
   b. invasion of privacy
   c. employer liability for employee's negligent conduct
   d. professional misconduct

4. Personal liability is a legal rule that

   a. applies only in criminal actions
   b. holds the hospital responsible for its personnel
   c. holds each individual responsible for his own rights
   d. has no significance in malpractice suits

5. A lack of care or skill that any nurse or technologist in the same situation would be expected to use is the legal definition of

   a. assault
   b. abandonment
   c. negligence
   d. default

6. According to the effect of surgery on the pathologic process, when the symptoms are alleviated but the disease remains the term used to define this process would be

   a. curative
   b. palliative
   c. ablative
   d. reconstructive

7. The Federal law passed in 1915 regulating the purchase, possession and sale of opium coca and all their preparations, natural and synthetic derivatives and salts is known as the

   a. Harrison Anti-Narcotic Act
   b. Louisiana Purchase
   c. McGrath-Act
   d. Miami Vice Act

8. The process that kills every living organism on an object is:

   a. Acid-Fast
   b. Protozoology
   c. Idiopathic
   d. Sterilization
   e. Flagellation

9. The measure of how much pull a suture can withstand before it will break is called

   a. yield power
   b. tensile strength
   c. capillarity
   d. gauge

10. Infections caused by Fungi are referred to as:

   a. Acid-Fast
   b. Mycotic
   c. Endemic
   d. Idiopathic
   e. Amoebic

11. The stage in which pathogenic bacteria develop a protective coat is the:

   a. Gram-Positive
   b. Gram-Negative
   c. Mycotic
   d. Spore
   e. Epidemic

12. Which type of suture would be used to invert the stump of an appendix?

   a. buried
   b. purse-string
   c. mattress
   d. tension

13. Microorganisms that retain the bluish dye after they have been stained and treated with iodine and a solvent are said to be:

    a. Gram-Negative
    b. Gram-Positive
    c. Pasteurized
    d. Vaccinated
    e. Flagellant

14. Which of the following is the best method to use to obtain positive assurance that sterilization conditions were achieved by either steam under pressure or ethylene oxide gas:

    a. Expose living spores to sterilization
    b. Expose Bacillus Stearothermophilus to steam sterilization
    c. Expose Bacillus Subtilis to gas
    d. All of the above

15. The toxins, or poisons, ejected by bacteria as a consequence of their metabolism are called:

    a. Antibodies
    b. Endotoxins
    c. Exotoxins
    d. Aerobes
    e. Anti-Sera

16. Relatively common microorganisms found in the intestinal tract and colon, and which are used to determine water pollution are:

    a. E. Coli and Coliforms
    b. Streptococci
    c. Pseudomonas
    d. Spirochetes
    e. Cl. Welchi

17. Germs found in soil which infect open wounds or fractures and cause gangrene are called:

    a. Spirochetes
    b. E. Coli and Coliforms
    c. Cl. Welchi
    d. Pseudomonas
    e. Staphylococci

18. A suture used to hold a structure to the side of the operative field is called a

    a. traction suture
    b. retention suture
    c. stay suture
    d. tension suture

19. When microorganisms invade tissue where infection already exists the condition is called:

    a. Systemic Infection
    b. Secondary Infection
    c. Primary Infection
    d. Causative Infection
    e. Abcess

20. A retention suture does not pass through

    a. mesentery tissue
    b. rectus muscle
    c. fascial tissue
    d. subcutaneous tissue

21. When a patient in a hospital acquires an infection from another patient the cause is referred to as:

    a. Inflammation
    b. Endogenous
    c. Cross Infection
    d. Terminal Infection
    e. Subclinical Infection

22. When infection originates outside the body, or organism, usually from contact with contaminated bedpans, equipment etc., the infection is referred to as:

    a. Endogenous
    b. Subclinical
    c. Latent
    d. Ectogenous
    e. Secondary

23. An acrylic, cement-like substance commonly referred to as bone cement is

    a. polytetrafluoroethylene
    b. polybutilate
    c. glycoside
    d. methyl methacrylate

24. Which human body parts, normally, harbour microorganisms:

    a. Skin, Liver, Respiratory Tract
    b. Liver, Respiratory Tract, Digestive Tract
    c. Skin, Respiratory Tract, Digestive Tract
    d. Spleen, Respiratory Tract, Digestive Tract
    e. Skin, Liver, Spleen

25. An aneurysm needle is used to

a. ligate a deep, large vessel
b. suction out fluid from an aneurysm
c. suture an aneurysm closed
d. inject the vascular system for x-ray study

26. A deadly type of food poisoning caused by a rod-shaped bacillus is known as:

a. Botulism
b. Fungisitis
c. Trichinosis
d. Hepatitis B
e. Bolusitis

27. The normal flora (organisms) found in the human intestinal tract are

a. Escherichia coli
b. Cornyebacterium diphtheriae
c. Mycobacterium tuberculosis
d. Clostridium welchii
e. Clostridium perfringens

28. There are numerous disease processes associated with Staphylococcus aurenus. Which of the following are portals of entry?

a. Skin
b. Respiratory tract
c. Genitourinary
d. Gastrointestinal
e. a, b and c

29. Which of the following are microorganisms which habitually live in the epidermis?

a. Transient
b. Resident
c. Endotoxin
d. Hospital acquired
e. None of the above

30. Which of the following usually gains entrance to the tissues after being deposited on and by burrowing through mucous membrane?

a. E. coli
b. Pseudomonas
c. N. gonorrhoeae
d. Salmonella
e. None of the above

31. Prevention of streptococcal infection can be accomplished by

    a. adherence to aseptic techniques
    b. proper handling of contaminated clothing and masks
    c. adequate ventilation
    d. none of the above
    e. a, b, and c

32. Which of the following cocci type organisms is(are) normally found on the skin but can cause wound infections under certain conditions?

    a. Diplococcus pneumoniae
    b. Hemolytic streptococci
    c. Staphylococcus aureus
    d. Bacillus botulinum
    e. Hemophilus influenzae

33. Diplococcus pneumoniae causes

    a. food poisoning
    b. gonorrhea
    c. syphilis
    d. skin infection
    e. none of the above

34. Oxygen-dependent bacteria are said to be:

    a. anaerobic
    b. bacillic
    c. antibiotic
    d. aerobic

35. Air droplets are the mode of transmission for all of the following <u>except</u>:

    a. colds
    b. influenza
    c. mumps
    d. streptococcal infections

36. Microorganisms whose growth is inhibited by free oxygen are:

    a. spores
    b. aerobes
    c. faculative bacteria
    d. anaerobes

37. The transmitters of pathogenic organisms by mechanical or biological means are called:

    a. vehicles
    b. fomites
    c. vectors
    d. carriers

38. As pathogens are transmitted again and again, their virulence:

a. decreases during an epidemic
b. increases during an epidemic
c. maintains endemic conditions
d. remains the same

39. The body's first line of defense against the invasion of pathogens is:

a. the immune response
b. skin and mucous membrane linings
c. cellular and chemical responses
d. phagocytosis

40. The most frequently traveled access route of infection is:

a. parenteral
b. respiratory
c. alimentary
d. gastrointestinal

41. All of the following descriptors refer to the inflammatory process except:

a. heat
b. pain
c. vasoconstriction
d. edema

42. When an infectious agent is limited to one locality of the body and becomes circumscribed in a boil or abcess it is referred to as:

a. Primary Infection
b. Carrier
c. Systemic Infection
d. Local Infection
e. Cross Infection

43. Why is silk not recommended for use in urinary or biliary surgery?

a. it may become the nucleus for stone formation
b. it lacks elasticity
c. it is decomposed by urine and bile
d. it is not strong enough

44. The first infection that develops after microbial invasion is referred to as:

a. Local Infection
b. Systemic Infection
c. Hospital Acquired Infection
d. Endogenous Infection
e. Primary Infection

45. When microorganisms invade tissue where infection already exists the condition is called:

    a. Systemic Infection
    b. Secondary Infection
    c. Primary Infection
    d. Causative Infection
    e. Abcess

46. A fulminating infection arising from necrotic tissue and spreading rapidly is:

    a. rabies
    b. gas gangrene
    c. pasteurellosis
    d. tetanus

47. Certain bacteria synthesize the growth of vitamins necessary for the host, such as vitamin K and B complex, which are produced by the:

    a. spleen
    b. kidneys
    c. bone marrow
    d. intestinal tract

48. Diseases that are continually present in the community are considered:

    a. pandemic
    b. epidemic
    c. endemic
    d. sporadic

49. Immediately following the surgical scrub when flora has been greatly decreased, the condition of the skin would be termed:

    a. Sterile
    b. Surgically clean
    c. Aseptic
    d. Septic

50. The two processes utilized in freeing the skin of as many organisms as possible are:

    a. The mechanical scrub
    b. The chemical application
    c. Application of multiple solutions
    d. application of sterile water
    e. a and b only

51. The purpose of the surgical scrub is to remove:

    a. Soil and debris
    b. Natural skin oils and hand lotions
    c. Microorganisms
    d. All of the above

52. When rinsing hands and arms during the surgical scrub:

    a. Start with fingertips and pass through water in one direction - from fingertips up to arm.
    b. Never move hands and arms back and forth through running water
    c. If second rinse is necessary start with fingertips again, moving one direction only
    d. all of the above

53. Factors to be considered in skin disinfection include:

    a. condition of involved area
    b. kind of contaminants
    c. characteristics of skin to be disinfected
    d. general physical condition of the individual
    e. all of the above

54. Jewelry should be prohibited in the O.R. because:

    a. it can scratch a patient
    b. it can catch on O.R. equipment
    c. it is a reservoir for bacteria
    d. all of the above

55. Tissue trauma is best minimized by using a

    a. threaded suture on a taper needle
    b. threaded suture on a cutting needle
    c. suture swaged on a needle
    d. suture threaded on a spring-eye needle

56. When carrying out the scrub procedure, all of the following are true <u>except</u>

    a. hands are held above the levels of the elbows
    b. small amounts of water are added during the scrub to develop suds and remove detritus
    c. the arm is scrubbed in a back and forth motion
    d. all steps of the scrub procedure begin with the hands and end with the elbows

57. Crossing the patient's arms across his chest may cause

    a. pressure on the ulnar nerve
    b. interference with circulation
    c. postoperative discomfort
    d. interference with respiration

58. The position frequently utilized in thyroid and gallbladder surgery is

a. supine
b. Trendelenburg
c. reverse Trendelenburg
d. dorsal recumbent

59. The desirable position for better visualization in the lower abdomen or pelvis is

a. Fowler's
b. reverse Trendelenburg
c. Trendelenburg
d. Kraske

60. A severe allergic reaction possibly resulting in death is called:

a. arthus reaction
b. hypersensibility
c. anaphylactic shock
d. autoimmune disease

61. In order to prevent strain to the lumbosacral muscles and ligaments when the patient is in lithotomy position

a. the buttocks must not extend beyond the table edge
b. the legs must be placed symmetrically
c. the legs must be at equal height
d. a pillow should be placed under the sacral area

62. The lithotomy position requires each of the following <u>except</u>

a. patient's buttocks rest along the break between the body and leg sections of the table
b. stirrups are at equal height on both sides of the table
c. stirrups are at the appropriate height for the length of the patient's legs to maintain symmetry
d. each leg is raised slowly and gently as it is grasped by the toes

63. In the lateral kidney position

a. both legs are straight
b. both legs are flexed
c. the lower leg is flexed, the upper leg straight
d. the lower leg is straight, the upper leg flexed

64. The organism most frequently found in burns is:

a. Clostridium perfringens
b. Pseudomonas aeruginosa
c. Escherichia coli
d. hemolytic streptococci

65. In positioning for laminectomy, rolls or bolsters are placed

a. horizontally, one under the chest and one under the thighs
b. longitudinally to support the chest from axilla to hip
c. longitudinally to support the chest from sternum to hip
d. below the knees

66. When moving a patient from lithotomy position

a. lower legs together quickly
b. lower legs together slowly
c. lower each leg separately and slowly
d. lower each leg separately and quickly

67. One who is a "host of infection" but displays no symptoms is termed a:

a. living reservoir
b. carrier
c. intermediary agent
d. transmitter

68. Stirrups that are inadequately padded or improperly placed can cause pressure on the

a. sciatic nerve
b. peroneal nerve
c. tibial nerve
d. gluteal nerve

69. Extreme positions of the head and arm can cause injury to the

a. cervical plexus
b. radial nerve
c. ulnar nerve
d. brachial plexus

70. Ulnar nerve damage could result from

a. poor placement of legs in stirrups
b. hyperextension of the arm
c. using mattress pads of varying thickness
d. placing an arm on an unpadded table edge

71. Which position would be used for a patient in hypovolemic shock?

a. modified Trendelenburg
b. reverse Trendelenburg
c. supine
d. dorsal recumbent

72. Lithotomy position is a variation of dorsal position. Some precautionary measures are

    a. patient's buttocks should be positioned and maintained at lower break of table to prevent lumbosacral strain
    b. stirrups must be level
    c. legs are positioned in stirrups simultaneously and removed simultaneously. Unilateral movement can affect hemodynamics.
    d. position arms loosely over abdomen
    e. all of the above

73. Drapes should NOT be

    a. shaken
    b. flipped
    c. perforated by towel clips
    d. used if sterility is questionable
    e. all of the above

74. Dehiscence in a poor-risk surgical patient can be prevented by utilization of

    a. interrupted sutures
    b. heavier suture material
    c. retention sutures
    d. strong, tight dressing

75. A method of supplying nutrients to the body of a nutritionally deficient patient is

    a. high protein feedings
    b. oral megavitamins
    c. daily liver injections
    d. parenteral hyperalimentation

76. Any area that is considered contaminated

    a. should be scrubbed last or separately
    b. should not be scrubbed at all
    c. should be scrubbed first
    d. needs no special consideration

77. The main purpose of the skin prep is to

    a. remove resident and transient flora
    b. remove dirt, oil, and microbes and to reduce the microbial count
    c. remove all bacteria from the skin
    d. sterilize the patient's skin

78. Colorless prep solution may be indicated for

a. orthopedic surgery
b. vascular surgery
c. plastic surgery
d. urological surgery

79. When doing a skin prep on a patient with a stoma, the stoma is

a. done first because it is open
b. done last or separately
c. given no special consideration
d. avoided since it is contaminated

80. Which of the following is not acceptable technique in draping?

a. hold the drapes high until directly over the proper area
b. protect the gloved hands by cuffing the end of the drape over them
c. unfold the drapes before bringing them to the O.R. table
d. place the drapes on a dry area

81. Draping is always done from _____ to _____, draping _____ first.

a. an unsterile area, a sterile area, nearest
b. an unsterile area, a sterile area, farthest
c. a sterile area, an unsterile area, farthest
d. a sterile area, an unsterile area, nearest

82. The skin prep for a breast biopsy is

a. routine
b. done gently
c. done vigorously
d. eliminated

83. Cancer technique in surgery refers to

a. the administration of an anticancer drug directly into the cancer site
b. the discarding of instruments coming in contact with tumor after each use
c. the use of radiation therapy at the time of surgery
d. the identification of the lesion

84. Which of the following is considered a break in technique?

a. a sterile person turns his back to a nonsterile person or area when passing
b. sterile persons face sterile areas
c. a sterile person sits or leans against a nonsterile surface
d. nonsterile persons avoid sterile areas

85. The suction appropriate for use in deep abdominal irrigation is

a. Yankauer
b. Poole
c. Adson
d. Frazier

86. A Gelpi is a

a. dissector
b. grasper
c. hemostat
d. retractor

87. Which instrument has no teeth?

a. Allis
b. Kelly
c. Kocher
d. Jacobs

88. Bandage scissors would be used on a surgical procedure such as

a. hysterectomy
b. uterine suspension
c. cesarean section
d. vaginal repair
e. laparotomy

89. Babcock clamps are usually found in the instrument kit for

a. breast surgery
b. intestinal surgery
c. amputations
d. gastric surgery
e. b and d

90. Soiled instruments, sponges, etc., should not be handled with uncovered hands. The purpose of this recommendation is to

a. prevent staining of the hand with blood
b. avoid contamination by organisms from the patient
c. prevent contact with fat cells deposited on instruments and sponges
d. all of the above
e. none of the above

91. Which suture loses much of its tensile strength after about one year in the body and usually disappears after a period of time?

a. polypropylene
b. stainless steel
c. nylon
d. silk

92. Next to stainless steel, the strongest nonabsorbable suture material is

a. polyester
b. nylon
c. polyglycolic acid
d. polyethylene

93. Polyglycolic acid sutures are

a. absorbed by an enzyme action
b. absorbed by the process of hydrolysis
c. nonabsorbable
d. encapsulated by body tissue

94. Which suture has inconsistent tensile strength and knot security?

a. silk
b. surgical gut
c. polyester
d. cotton

95. A suture used in heart surgery because it has a high flex life is

a. collagen suture
b. polyglycolic acid suture
c. dermal silk suture
d. polyester suture

96. A needle with three sharp cutting tips at the points is classified as a

a. trocar
b. side cutting
c. reverse cutting
d. conventional cutting

97. The needle point used primarily in ophthalmic surgery is

a. taper point
b. trocar point
c. reverse cutting point
d. side cutting point

98. The type of needle point used on tissue such as peritoneum and intestines is

a. taper point
b. blunt point
c. cutting point
d. torcar point

99. Which suture is inert is tissue, has high tensile strength, and gives support to a wound indefinitely?

a. nylon
b. silk
c. stainless steel
d. cotton

100. Stainless steel is an iron ore alloy which

a. is used for internal and external suturing
b. is produced only in monofilament strands
c. ranges in size from 7 to 6-0
d. is sometimes classified in sizes 18-40
e. all but B

APPENDIX F

LOG

LOG

Student's Name _____

Surgical Procedure	Time	Intraoperative Experience	Comments