

Core Curriculum for Surgical Technology: Comparison of 6th and 7th Editions

This document provides the differences between the 6th and 7th editions of the *Core Curriculum for Surgical Technology* (CCST). It will allow educators to pinpoint revisions that have been made in the 7th edition CCST. The left column is the 6th edition CCST, and the second (middle) column is the 7th edition CCST. Additionally, information is presented according to content headings, such as Anatomy & Physiology, Microbiology, and so forth. Both columns have highlighted areas; the following is the legend that is used. “Notes” are provided in the third column. If a content area has no revisions, it is not listed; for example, the “Instrumentation” document objective 3 in the 6th edition is the same as objective 4 in the 7th edition, so it is not listed.

New
Revised
Deleted
Moved from one content area to another content area

6 th ed. Anatomy & Physiology	7 th ed. Anatomy & Physiology	Notes
Content	Content	Information from the 6 th ed. is included in the 7 th ed. but is reorganized and headings revised. Only new material or major revisions are listed.
D. Major divisions and functions of the brain 3. Ventricular system a. Anatomy	D. Major divisions and functions of the brain 3. Ventricular system a. Structures	
B. Eye 1. Anatomy	B. Eye 1. Structures	
C. Ear 1. Anatomy a. External ear (1) Auricle (2) Pinna (3) Tragus	C. Ear 1. Structures a) External ear 1) Auricle (pinna)	

B. Anatomic structures of the heart	B. Structures of the heart	
XIII. Lymphatic system E. Edema 1. Definition 2. Cause	XIII. Lymphatic system	Listed in “Pathophysiology”.
XVI. Genitourinary system 3. Ureters a. Function 5. Urethra	XVI. Genitourinary system 4. Ureters a) Structure b) Function 5. Bladder a) Structure b) Function 6. Urethra	<ul style="list-style-type: none"> Information about ureters was not in the 6th edition. Heading corrected to “Bladder”. Numbering revised. Terms listed in different order.
XVII. Reproductive system d. Fallopian tubes	XVII. Reproductive System d) Uterine tubes (Fallopian tubes)	

6 th ed. Medical Terminology	7 th ed. Medical Terminology	Notes
Objectives 1. Combine prefixes, word roots, and suffixes to create medical terms related to surgery. 2. Construct and combine compound words. 3. Pronounce medical terms related to surgery. 4. Write medical terms using correct spelling.	Objectives 1. Combine prefixes, word roots, and suffixes to create medical terms. 2. Pronounce medical terms. 3. Write medical terms. 4. Identify abbreviations.	
4. Write medical terms using correct spelling.	3. Write medical terms.	
Content	Content	
II. Prefix, Suffix, Direction, Amount, and Color	II. Prefix, Suffix, Direction, Amount, and Color A. Prefix 4. Ambi-	

	<p>25. Macro-</p> <p>27. Micro-</p> <p>C. Word roots/combining forms</p> <p>3. Forms describing color description</p> <p>a) Albo/o, Albin/o</p> <p>e) Leuk/o</p> <p>g) Poli/o</p>	
<p>III. Medical term components by system</p> <p>B. Musculoskeletal system</p> <p>1. Word roots</p> <p>bb. Pubic</p> <p>cc. adi/o</p>	<p>III. Medical term components by system</p> <p>1. Word roots</p> <p>bb. Radi/o</p>	
<p>IV. Abbreviations</p> <p>A. Commonly used abbreviations</p> <p>8. ARD acute respiratory disease</p> <p>52. I & D incision and drainage</p> <p>B. The Joint Commission “Do Not Use” abbreviation list</p> <p><u>Do Not Use</u></p> <p><u>U (unit)</u></p>	<p>IV. Abbreviations</p> <p>A. Commonly used abbreviations</p> <p>8. ARDS acute respiratory distress syndrome</p> <p>52. I & D incision & drainage; irrigation & debridement</p> <p>B. The Joint Commission “Do Not Use” abbreviation list</p> <p><u>Do Not Use</u></p> <p><u>U, u (unit)</u></p>	

6 th ed. Microbiology	7 th ed. Microbiology	Notes
<p>Content</p> <p>II. Cell (see Information Box)</p> <p>B. Structure of eukaryotic cells</p> <p>C. Structure of prokaryotic cells</p> <ol style="list-style-type: none"> 1. Capsule 2. Slime layer 3. Cell wall 4. Cytoplasmic membrane 5. Cytoplasm <ol style="list-style-type: none"> a. Ectoplasm b. Endoplasm 6. Flagella 7. Pili and fimbriae 8. Nucleoid 9. Plasmids 10. Ribosomes <p>D. Transport across the cytoplasmic membranes</p> <ol style="list-style-type: none"> 1. Passive transport <ol style="list-style-type: none"> a. Diffusion b. Osmosis c. Filtration 2. Active transport <ol style="list-style-type: none"> a. Endocytosis <ol style="list-style-type: none"> (1) Pinocytosis (2) Phagocytosis b. Exocytosis 	<p>Content</p> <p>II. Cell</p> <p>B. Cytoplasmic membrane transport</p> <ol style="list-style-type: none"> 1. Active <ol style="list-style-type: none"> a) Endocytosis <ol style="list-style-type: none"> 1) Phagocytosis 2) Pinocytosis b) Exocytosis 2. Passive <ol style="list-style-type: none"> a) Diffusion b) Filtration <p>C. Structure</p> <ol style="list-style-type: none"> 1. Eukaryotic <ol style="list-style-type: none"> a) Cell (plasma) membrane b) Cell wall c) Cytoplasm d) Endoplasmic reticulum e) Golgi apparatus f) Mitochondria g) Nucleus h) Ribosomes 2. Prokaryotic <ol style="list-style-type: none"> a) Capsule b) Cell (plasma) membrane c) Cell wall d) Cytoplasm <ol style="list-style-type: none"> 1) Ectoplasm 2) Endoplasm e) Flagella f) Nucleoid g) Pili and fimbriae h) Plasmids 	

	i) Ribosomes	
III. Introduction to microscopy A. Types of microscopes B. Parts of a microscope C. Use of a microscope	III. Microscopes A. Types B. Parts C. Uses	
IV. Staining methods B. Different stains	IV. Staining methods B. Differential	
V. Culture media A. General culture media B. Special culture technique C. Preserving cultures	V. Culture media A. General B. Preserving C. Special techniques	
VI. Nomenclature of microbiology B. Binomial nomenclature E. Viruses 4. Environmental requirements G. Prions 3. Environmental requirements	VI. Nomenclature B. Binomial D. Prion 1. Environmental factors F. Virus 2. Environmental factors	
VIII. Types of Microorganisms E. Viruses 4. Environmental requirements G. Prions 3. Environmental requirements	VIII. Microorganism Types D. Prion 1. Environmental factors F. Virus 2. Environmental factors	
IX. Common causative agents A. Affecting the skin and wounds 1. Bacteria 2. Viruses B. Affecting the nervous system 1. Bacteria 2. Viruses	IX. Common causative agents A. Bacteria 3. <i>Bacteroides fragilis</i> B. Fungi C. Prions D. Protozoa E. Viruses	6 th ed. lists of microbes according to body system have been deleted. 7 th ed. lists are according to the type of microbe. Except for one new listing, all microbes from the 6 th edition are listed in the 7 th edition.

IX. Common causative agents

C. Affecting the eyes

1. Bacteria

D. Affecting the cardiovascular system

1. Bacteria

E. Affecting the respiratory system

1. Bacteria
2. Fungi

F. Affecting the digestive system

1. Bacteria
2. Viruses

G. Affecting the urinary and reproductive system

1. Bacteria
 - a. A *Streptococcus*
2. Viruses
3. Protozoa
4. Fungi

H. Affecting the immunological system

1. Human immunodeficiency system

6 th ed. Pathophysiology	7 th ed. Pathophysiology	Notes
Content	Content	
	E. Sensory system 2. Diseases and disorders a) Ear 9) Cholesteatoma G. Respiratory system 2. Diseases and disorders b) Upper respiratory diseases 1) Congenital diseases (a) Subglottic stenosis L. Reproductive system 2. Male reproductive system 5) Human immunodeficiency virus (HIV) 6) Human papillomavirus (HPV)	L, 2, 5) and 6) are new to “Pathophysiology” but are also listed in “Microbiology”.

6 th ed. Pharmacology and Anesthesia	7 th ed. Pharmacology and Anesthesia	Notes
Objectives 1. Analyze the principles of anesthesia administration as well as be able to explain the necessity of each component of anesthesisa preparation of the surgical patient. 7. Prepare and manage medications and solutions. 8. Use medications in the care of the surgical patient.	Objectives 1. Analyze the principles of anesthesia administration and explain the necessity of each component of anesthesia preparation of the surgical patient.	
Content	Content	6 th ed. material is in the 7 th ed. but reorganized and headings revised.
I. Definition of Anesthesia	I. Anesthesia A. Terminology 2. Equipment 3. Devices	

II. Assessment to determine anesthesia choice

H. Choices of anesthesia administration

3. Related terms

- a. Balanced anesthesia
- b. Neuroleptanalgesia
- c. Neuroleptanesthesia

B. Considerations (when choosing)

1. Choice of administration

- 5) Nerve block (local)

(b) Retrobulbar

C. Equipment and devices

1. Application

- a) Airway management

1) Bite block

2) Bougie

h) Nerve stimulator

i) Patient monitoring devices

5) Transesophageal cardiograph

6) Urinary catheter

E. General anesthesia

1. Anesthetic agents

- d) Neuromuscular blocking

2) Non-depolarizing

(b) Cisatracurium

2. Patient concepts

a) Position for induction

1) Supine

(b) Monitoring

3) Depth of anesthesia

(a) Bispectral index (BIS)

4) Carbon dioxide

(a) Capnography

5) Electrocardiogram (ECG)

(a) Normal values

F. Local anesthesia

1. Local and topical agents

- a) Amides

4) Ropivacaine

<p>IV. Preoperative medication of the patient</p> <p>D. Antacid/H2-receptor blocking agents</p> <p>4. Ranitidine</p>	<p>G. Complications of anesthesia</p> <p>1. Adverse reaction</p> <p>a) Anaphylactic</p> <p>b) Hemolytic</p> <p>c) Idiosyncratic</p> <p>4. Injury</p> <p>a) Corneal</p> <p>b) Oral</p>	
<p>V. General Anesthesia</p> <p>B. Patient monitoring devices</p> <p>1. Electrocardiogram (ECG)</p> <p>a. Principles</p> <p>b. Equipment</p> <p>c. Placement of electrodes (sites)</p> <p>d. Recording</p> <p>e. Values</p> <p>(1) Adult</p> <p>(2) Child</p> <p>2. Blood pressure</p> <p>a. Principles</p> <p>b. Equipment</p> <p>(1) Stethoscope</p> <p>(2) Automated cuff</p> <p>c. Techniques</p> <p>d. Sites</p> <p>e. Recording</p> <p>f. Values</p> <p>(2) Abnormal</p> <p>3. Pulse</p> <p>a. Principles</p>	<p>II. Pharmacology</p> <p>B. Medication concepts</p> <p>2. Classifications</p> <p>e) U.S. Food and Drug Administration Pregnancy and Lactation Risk (PLLR) categories</p> <p>7. Routes of administration</p> <p>b) Parenteral</p> <p>7) Retrobulbar</p> <p>c) Topical</p> <p>1) Buccal</p> <p>3) Intraocular</p> <p>5) Sublingual</p> <p>C. Medication measurements</p> <p>2. Basic mathematics</p> <p>c) Military time</p> <p>D. Care and handling</p> <p>1. Delivery devices (see <i>Supplies</i>)</p> <p>b) Injection needles</p> <p>1) Angiocatheter</p> <p>2) Filter</p> <p>3) Hypodermic</p> <p>4) Spinal</p>	

<ul style="list-style-type: none">b. Equipmentc. Techniques<ul style="list-style-type: none">(1) Manual(2) Pulse oximeterd. Sitese. Recordingf. Values<ul style="list-style-type: none">(2) Abnormal5. Intravascular catheters<ul style="list-style-type: none">a. Arterial line<ul style="list-style-type: none">(1) Principles(2) Equipment(3) Techniques(4) Recording(5) Valuesb. Swan-Ganz pulmonary artery catheter<ul style="list-style-type: none">(1) Principles(2) Equipment(3) Techniques(4) Recording(5) Valuesc. Central venous pressure<ul style="list-style-type: none">(1) Principles(2) Equipment(3) Techniques(4) Recording(5) Values	<ul style="list-style-type: none">E. Medications used in surgery<ul style="list-style-type: none">1. Classification of agents<ul style="list-style-type: none">1) Coagulants, hemostatic, and sealants	
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| <ul style="list-style-type: none">6. Temperature<ul style="list-style-type: none">a. Principlesb. Equipment<ul style="list-style-type: none">(1) Probe<ul style="list-style-type: none">(a) Rectal(2) Foley temperature catheter(3) Skin temperature stripc. Techniquesd. Sitese. Recordingf. Values<ul style="list-style-type: none">(2) Abnormal7. Pulse oximeter<ul style="list-style-type: none">a. Principlesb. Equipmentc. Techniquesd. Values<ul style="list-style-type: none">(2) Abnormal9. Respiration<ul style="list-style-type: none">a. Principlesb. Techniques<ul style="list-style-type: none">(1) Manualc. Recordingd. Values<ul style="list-style-type: none">(2) Abnormal10. System for anesthetic and Respiratory analysis (SARA)11. Doppler | | |
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<p>12. Arterial blood gases</p> <ul style="list-style-type: none"> a. Principles b. Equipment c. Techniques d. Lab values <p>C. Related patient care devices</p> <ul style="list-style-type: none"> 1. Hypo- and hyperthermia unit <ul style="list-style-type: none"> a. Principles b. Equipment c. Techniques d. Temperature <p>D. Anesthesia machine</p> <ul style="list-style-type: none"> 1. Vaporizer 2. Ventilator 3. Re-breathing apparatus 4. Scavenging system <p>F. Intubation and extubation assistive devices</p> <ul style="list-style-type: none"> 1. Laryngoscope <ul style="list-style-type: none"> a. Rigid b. Flexible <p>I. Anesthetic agents</p> <ul style="list-style-type: none"> 3. Neuromuscular blocking agents <ul style="list-style-type: none"> b. Non-depolarizing <ul style="list-style-type: none"> (4) Pancuronium 		
<p>VI. Local anesthesia</p> <ul style="list-style-type: none"> B. Local and topical agents <ul style="list-style-type: none"> 2. Esters <ul style="list-style-type: none"> b. Pontocaine 		
<p>VII. Complications of anesthesia</p> <ul style="list-style-type: none"> A. Allergic reaction 		

<p>VIII. Alternative anesthesia methods</p> <ul style="list-style-type: none"> A. Cryoanesthesia B. Acupuncture 		
<p>IX. Medication measurements</p> <ul style="list-style-type: none"> A. Conversion and equivalent tables <ul style="list-style-type: none"> 1. Metric system <ul style="list-style-type: none"> a. Terminology 2. Household system <ul style="list-style-type: none"> a. Terminology 3. Temperature conversion <ul style="list-style-type: none"> a. Fahrenheit to Celsius b. Celsius to Fahrenheit 4. Units of measure <ul style="list-style-type: none"> a. oz b. mL or ml c. L d. Gtt e. Kg f. Mg 		
<p>XI. Medications</p> <ul style="list-style-type: none"> E. Medication publications <ul style="list-style-type: none"> 2. <i>The National Formulary</i> 3. <i>Pharmacopedia of the United States of America</i> 4. <i>American Hospital Formulary Service Index</i> 		
<p>XII. Care and handling of medications and solutions</p> <ul style="list-style-type: none"> B. Packaging, measurement, and delivery <ul style="list-style-type: none"> 3. Vial 4. Ampule 5. Tube 		

6. Sterile packets 8. Graduated pitchers 10. Intrathecal pump		
XIII. Medications used in surgery B. Alternative medications 1. Herbal medicine 2. Nutritional supplements		

6 th ed. Communication Skills and Teamwork	7 th ed. Communication Skills	Notes
Objectives 1. Discuss types of communication relationships. 4. Distinguish between assertive and aggressive behavior. 5. Discuss problem behaviors and coping mechanism. 6. Describe concepts of conflict resolution.	Objectives 1. Define and describe types of communication relationships.	Title revised. Teamwork and conflict resolution are separate new sections.
Content	Content	
III. Principles of communication A. Types 1. Verbal 2. Nonverbal e. Written C. Qualities of communication 1. Respect d. Assertiveness vs. aggressiveness	III. Principles of Communication A. Types 1. Verbal a) Tone 3. Written a) Netiquette b) Tone C. Qualities of communication 1. Respect and positive language 3. Feedback 5. Understanding	

6 th ed. Communication Skills and Teamwork	7 th ed. Teamwork	Notes
Objectives	Objectives	“Teamwork” is a new section.
	<p>Didactic</p> <ol style="list-style-type: none"> 1. Discuss methods for successful surgical team participation. 2. Discuss strategies for the attainment of effective team goals. 3. Compare and contrast individual skills vs. collaboration roles and responsibilities. 	
Content	Content	
<p>IV. Principles of good teamwork and group interaction</p> <ul style="list-style-type: none"> B. Discussion of conflict C. Yielding G. Constructive criticism H. Stages of team development <ol style="list-style-type: none"> 1. Forming 2. Storming 3. Norming 4. Performing 5. Adjourning 	<p>I. Principles of teamwork and group interaction</p> <ul style="list-style-type: none"> A. Define and demonstrate <ol style="list-style-type: none"> 3. Constructive criticism <ol style="list-style-type: none"> a) Educate b) Giving and receiving c) Handling negativity d) Positive reinforcement e) Providing rational f) Speak out g) Understanding perspective 4. Flexibility 	
	<p>II. Organizing a team</p> <ul style="list-style-type: none"> A. Stages of team development <ol style="list-style-type: none"> 1. Forming <ol style="list-style-type: none"> a) Initiation of quality discussions and goals b) Roles and responsibilities c) Selection criteria d) Timeline 2. Storming <ol style="list-style-type: none"> a) Clarification 	

	<ul style="list-style-type: none"> b) Handling personality conflicts c) Providing information <p>3. Norming</p> <ul style="list-style-type: none"> a) Examining strengths and weaknesses b) Development of cohesive patterns of work performance <p>4. Performing</p> <ul style="list-style-type: none"> a) Finding solutions b) Meeting deadlines c) Motivation <p>5. Adjourning</p> <ul style="list-style-type: none"> a) Evaluating b) Congratulating c) Summarizing 	
	<p>B. Principles of a safe team environment</p> <ul style="list-style-type: none"> 1. Appreciation 2. Constructive criticism 3. Listening 4. Transparency 	

6 th ed. Communication Skills and Teamwork	7 th ed. Conflict Resolution	Notes
Objectives	Objectives	
	<ul style="list-style-type: none"> 1. Identify the skills necessary to resolve conflict in the workplace. 2. Distinguish the types of behavioral concerns found in society. 3. Discuss the strategies to negotiate effective problem resolution. 4. Evaluate the methods to prevent conflict in the surgical arena. 	

Content	Content	
<p>V. Conflict management and problem behaviors</p> <p>C. Disruptive behaviors</p> <ol style="list-style-type: none"> 2. Coping <p>D. Feedback</p> <ol style="list-style-type: none"> 1. Positive 2. Negative 3. Imp 	<p>I. Conflict management</p> <p>A. Necessary skills</p> <ol style="list-style-type: none"> 1. Active listening 2. Communication 3. Emotional agility 4. Problem solving 5. Stress management 6. Teamwork <p>B. Solution strategies</p> <ol style="list-style-type: none"> 1. Avoidance 2. Eliminate us vs. them mentality 3. Evaluate non-negotiable issues vs. pseudo important issues 4. Identify deeper concerns 5. Recognizing bias 	
<p>VI. Conflict resolution</p> <p>A. Communication skills</p> <p>B. Solution concepts</p> <ol style="list-style-type: none"> 1. Win-win 2. Win-lose 3. Lose-lose 	<p>II. Identification of Behavioral Concerns</p> <p>D. Disruptive behaviors</p> <ol style="list-style-type: none"> 1. Argumentative 2. Blaming others 3. Poor temperament control 4. Questioning authority or standards 5. Refusing to follow rules 	

6 th ed. Ethical and Moral Issues	7 th ed. Ethical and Moral Issues	Notes
Objectives 2. Develop an increased sensitivity to the influence of ethics in professional practice.	Objectives 2. Understand the influence of ethics in professional practice. Skill Applications: 1. Demonstrate the key elements related to developing a surgical conscience.	
Content	Content	
II. Elements of ethical decision making D. Ethical decision-making G. Moral dilemmas	II. Elements of ethical decision making B. Autonomy C. Beneficence D. Confidentiality G. Deontology H. Ethical factors J. Informed consent K. Justice M. Nonmaleficence O. Philosophy S. Truthfulness T. Utilitarianism	
III. Surgical conscience A. Concepts 7. Sterile technique	III. Surgical conscience A. Concepts 3. HIPAA	
IV. Ethical conflicts in clinical practice G. Good Samaritan Law I. Medicare fraud	IV. Ethical considerations in clinical practice I. Insurance fraud N. Substance abuse 2. Patient	

6 th ed. Legal Issues, Documentation, and Risk Management	7 th ed. Legal Issues, Documentation, and Risk Management	Notes
<p>Objectives</p> <p>2. Interpret the legal responsibilities of the surgical technologist and surgical team members.</p> <p>3. Compare and contrast criminal and civil liabilities and the consequences for these acts.</p> <p>4. Assess the resources that aid the surgical technologist in interpreting and following professional standards of conduct.</p> <p>5. Analyze the recommended practices and legal elements of proper documentation.</p> <p>6. Interpret prevention, correction, and documentation techniques that may positively impact risk management issues.</p>	<p>Objectives</p> <p>2. Define the various types of legal doctrines.</p> <p>3. Discuss the concepts that influence the standards of conduct.</p> <p>4. Analyze the legal elements of proper documentation.</p> <p>5. Describe the types of sentinel events.</p> <p>6. Summarize the intentions of risk management.</p>	
Content	Content	
<p>I. Legal terminology</p> <p>C. Torts</p> <p>1. Define</p>		
<p>II. Negligence</p> <p>G. Malpractice</p> <p>6. Jury</p>	<p>II. Negligence</p> <p>D. Malpractice</p> <p>7. Trial</p>	
<p>III. Legal doctrines</p> <p>F. Informed consent</p> <p>1. Patient's right to know</p> <p>2. Preparation</p> <p>3. Verification</p> <p>4. Legality</p>	<p>IV. Professional standards of conduct</p> <p>B. AST Guidelines for Best Practices</p> <p>G. Professional agencies</p>	
<p>V. Documentation concepts</p> <p>B. Types of documents</p> <p>d. Special procedure</p>	<p>V. Documentation concepts</p> <p>A. Patient care</p> <p>2. Intervention</p>	

	<p>C. Types of documents</p> <p>5. Incident report</p>	
<p>VI. Operating room sentinel events</p> <p>J. Burns due to use of ESU</p> <p>L. Patient positioning</p>	<p>VI. Operating room sentinel events</p> <p>K. Inadvertent burns</p> <p>L. Incorrect positioning of patient</p>	
<p>VII. Risk management for sentinel events</p> <p>A. Objectives</p> <p>3. Proactive identification potential causes of sentinel events</p> <p>5. Procedures for collecting data on sentinel events</p> <p>B. Risk management issues</p> <p>1. Reduced staffing</p> <p>2. Patient safety</p> <p>3. Employee rights</p> <p>C. Prevention practices</p> <p>1. Location and use of emergency equipment.</p> <p>D. Managing sentinel events</p> <p>3. Patient injury</p> <p>a. Immediately reported</p> <p>b. Treat</p> <p>4. Employee injury</p> <p>a. Immediately reported</p> <p>b. Treated</p> <p>5. Documentation</p> <p>a. Sentinel Event Report</p> <p>b. Witnesses</p>	<p>VII. Risk management</p> <p>A. Objectives</p> <p>3. Procedures</p> <p>a) Data collection</p> <p>1) Identify potential causes of sentinel events</p> <p>B. Managing events</p> <p>1. Injuries</p> <p>a) Employee</p> <p>b) Patient</p> <p>D. Reporting</p> <p>1. Documentation</p>	

6 th ed. Employability Skills	7 th ed. Employability Skills	Notes
<p>Objectives</p> <p>1. Assess current trends and employment opportunities for the surgical technologist.</p> <p>5. Compare and contrast various types of employment/application correspondence.</p>	<p>Objectives</p> <p>1. Assess employment opportunities for the surgical technologist.</p> <p>3. Compare and contrast various types of employment/applications and follow-up correspondence.</p>	
<p>Content</p>	<p>Content</p>	
<p>I. Employment in the healthcare field</p> <p>B. Current employment trends and opportunities</p> <p>7. Office manager</p> <p>9. Physician/surgeon's assistant</p> <p>10. Surgical first assistant</p>	<p>I. Employment in the healthcare field</p> <p>B. Employment opportunities</p> <p>5. Manager</p> <p>a) Ambulatory Surgery Center (ASC)</p> <p>d) Operating room</p> <p>7. Private surgical technologist</p>	
<p>II. Employability skills</p> <p>A. Accountability</p> <p>B. Adaptability</p> <p>C. Commitment to continuing education</p> <p>E. Conflict resolution</p> <p>F. Dedication</p> <p>G. Personal appearance and hygiene</p> <p>H. Previous work history</p>	<p>II. Employability skills</p> <p>A. Applied knowledge</p> <p>1. Applied academic skills</p> <p>a) Mathematical strategies</p> <p>b) Reading</p> <p>c) Scientific principles/procedures</p> <p>d) Writing</p> <p>2. Critical thinking skills</p> <p>a) Analyze</p> <p>b) Organize</p> <p>c) Plan</p> <p>d) Problem solves</p> <p>e) Reason</p> <p>B. Workplace skills</p> <p>2. Information use</p> <p>3. Resource management</p> <p>a) Prioritization</p> <p>b) Time management</p> <p>4. Technology use</p>	

	<p>C. Effective relationships</p> <p>1. Interpersonal skills</p> <p>a) Collaboration</p> <p>b) Effective communication</p> <p>c) Facility goals</p> <p>d) Independence</p> <p>e) Positive attitude</p> <p>2. Personal qualities</p> <p>a) Disciplined</p> <p>b) Flexible</p> <p>c) Initiative</p> <p>d) Integrity</p> <p>e) Responsibility</p> <p>f) Willingness to learn</p>	
V. Employment application form	V. Employment application form	
	A. Hard copy	
	B. Online	

6 th ed. Professional Management	7 th ed. Management and Leadership	Notes
		<ul style="list-style-type: none"> 6th ed., <i>Professional Management</i> deleted from 7th edition. 7th ed., <i>Management and Leadership</i> is a new section that replaces <i>Professional Management</i>.

6 th ed. Healthcare Facility Organization and Management	7 th ed. Healthcare Facility Organization and Management	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Compare and contrast the roles of team members in the operating room. 2. Acknowledge the proper chain of command in the operating room. 3. Compare and contrast health care facility departments that relate to direct and indirect patient care in surgical services. 	<p>Objectives</p> <ol style="list-style-type: none"> 1. Compare the different roles of the team members in the surgical setting. 2. Identify the proper chain of command in the operating room. 3. Describe the health care facility departments that provide direct and indirect patient care. 4. Describe the healthcare agencies that impact the provision of surgical services. 	
<p>Content</p>	<p>Content</p>	
<p>I. Sterile team members and roles</p> <p>A. First and second scrub roles</p> <ol style="list-style-type: none"> 1. Surgical technologist 2. LVN/LPN 3. Registered nurse 	<p>I. Sterile team members and roles</p> <p>A. First and second scrub roles</p>	
	<p>II. Nonsterile team members and roles</p> <p>C. Support personnel</p> <ol style="list-style-type: none"> 10. Sterile processing department liaison 	
	<p>III. Healthcare facility chain of command</p> <p>A. Organizational chart</p> <ol style="list-style-type: none"> 1. Facility wide 2. Surgical services 	

6 th ed. Physical Environment	7 th ed. Physical Environment	Notes
<p>Objectives</p> <p>3. Describe an optimal location of an operating room.</p> <p>5. Describe the environmental systems and controls within the operative environment.</p> <p>6. State the proper ranges for temperature and humidity controls.</p> <p>7. Describe the various components of the operating room ventilation system.</p> <p>9. Discuss the potential hazards in the operating room environment.</p>	<p>Objectives</p> <p>3. Explain the principles underlying the design of the surgical department.</p> <p>5. Summarize the components that comprise the environmental systems.</p>	
<p>Content</p>	<p>Content</p>	
<p>I. Surgical services</p> <p>B. Floor plan</p>	<p>I. Surgical services</p> <p>B. Floor plan</p> <p>1. Racetrack</p> <p>2. Hotel style</p> <p>3. Central core</p>	
<p>III. Operating room</p> <p>C. Environmental systems</p> <p>3. Electrical outlets</p> <p>5. Environmental safety</p> <p>a. Traffic control</p>	<p>III. Operating room</p> <p>C. Environmental systems</p> <p>3. Electrical outlets</p> <p>a) Red outlets</p> <p>b) Standard outlets</p>	

6 th ed. All-Hazards Preparation	7 th ed. All-Hazards Preparation	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Describe disasters or public health emergencies that impact public health including the different types (e.g. natural, unintentional, and terrorist events) along with the general health, safety and security risks. 2. Describe the all-hazards framework. 3. Explain key components of personal, family, institutional, community and regional disaster preparation and planning as related to the following: a – g. 4. Describe communication strategies and procedures used in a disaster including barriers to communicating and disseminating health information, reporting systems and procedures for contacting family, coworkers, and local authorities. 5. Describe the purpose and relevance of disaster support services including rationale for integration and coordination of all systems: a – c. 6. Describe the potential impact of mass casualties on the clinical and public health resources including infection control precautions, personal protective equipment, and decontamination procedures. 	<p>Objectives</p> <ol style="list-style-type: none"> 1. Describe the types of disasters or public health emergencies. 2. Discuss the effects of emerging infectious diseases. 3. Describe the effect disasters can have on the environment. 4. Describe how healthcare facilities can manage waste. 5. Describe the purpose and coordination of the all-hazards systems including the hospital incident command system, national incident management systems, and national response framework. 6. Describe the components of a healthcare facility emergency operations plan. 7. Explain the personal and professional responsibilities of healthcare workers when participating in the management of a disaster or hazard. 8. Describe how to mitigate casualties according to specific types of hazards. 9. Describe the four responses that apply to every type of disaster. 10. Describe the triage procedures. 11. Describe the role of the surgical technologist during triage. 	
<ol style="list-style-type: none"> 7. Explain the role of triage as a basis for prioritizing or rationing health care services for victims. 8. Describe the possible medical and mental health consequences, interventions, and 	<ol style="list-style-type: none"> 12. Describe the processes used to control contamination. 14. Discuss the moral and ethical issues relevant to hazards. 	

<p>solutions for managing those affected including the psychological, emotional, cultural, religious, and forensic considerations for management of mass fatalities and the resources, supplies, and services available: a – e</p> <p>9. Explain the basic lifesaving and life-support principles and procedures that can be used at a disaster scene.</p> <p>10. Describe issues relevant to the management of individuals of all ages, populations, and communities affected by a disaster or public health emergency: a - d</p>		
<p>Content</p>	<p>Content</p>	<p>6th edition: The following sections have been deleted: I, II A - C, E, F, and IV C.</p>
<p>I. General indicators and epidemiological clues of a disaster</p>	<p>I. Types of Disasters</p> <ul style="list-style-type: none"> A. Manmade B. Natural C. Natural-manmade (e. g. defective dam) 	
<p>II. Disaster planning: personal, healthcare facility, LEMA</p> <ul style="list-style-type: none"> A. Family and personal protection B. National Incident Management System (NIMS) C. Incident Command Systems (ICS) D. Hospital emergency operations plans <ul style="list-style-type: none"> 1. Components of plan <ul style="list-style-type: none"> c. Preparedness 2. Evacuating a medical facility <ul style="list-style-type: none"> c. Medical records d. Refrigerated medical supplies 3. Hospital Incident Command System 	<p>II. Emerging infectious diseases</p> <ul style="list-style-type: none"> A. Epidemic B. Pandemic 	

<p>(HICS)</p> <ul style="list-style-type: none"> a. Clarify roles and responsibilities b. Job action sheets <p>4. Healthcare worker responsibilities</p> <ul style="list-style-type: none"> d. Knowledge of hospital signals/codes during emergency e. Procedures for communication <p>E. Medical office and stand-alone out-patient surgery centers</p> <p>F. Local Emergency Management Agencies (LEMA)</p>		
<p>III. National disaster planning</p> <ul style="list-style-type: none"> A. Federal Emergency Management Agency (FEMA) C. National Disaster Medical System (NDMS) <ul style="list-style-type: none"> 1. Disaster Medical Assistant Teams (DMAT) 2. Disaster Mortuary Operations Response Team (DMORT) 3. National Pharmacy Response Teams (NPRT) 7. Security of family 	<p>III. Environmental health in disasters</p> <ul style="list-style-type: none"> A. Water <ul style="list-style-type: none"> 1. Sanitation methods during disaster B. Contaminated atmospheric air <ul style="list-style-type: none"> 1. Methods of protection during disaster <ul style="list-style-type: none"> a) Building b) PPE C. Healthcare facilities <ul style="list-style-type: none"> 1. Waste management during disaster 	
<p>IV. Immediate response to an all-hazards event</p> <ul style="list-style-type: none"> B. Response <ul style="list-style-type: none"> 6. Point of distribution (POD) <ul style="list-style-type: none"> a. Strategic National Stockpile (SNS) <ul style="list-style-type: none"> (1) Push packs C. Risk communication with public 	<p>IV. Disaster support services</p> <ul style="list-style-type: none"> A. Hospital Incident Command System (HICS) B. National Incident Management Systems (NIMS) 	

	<p>V. Healthcare facility disaster planning</p> <p>B. Healthcare worker responsibilities</p> <p>4. Procedures for communication</p> <p>a) Electronic</p> <p>b) Non-electronic</p> <p>5. Knowledge of healthcare facility signals/codes during emergency</p> <p>a) Abduction</p> <p>b) Active shooter</p> <p>c) Bomb threat</p> <p>d) Severe weather</p> <p>e) Shelter-in-place</p>	
<p>VII. Issues during a disaster</p> <p>C. Legal issues</p> <p>D. Regulatory issues</p>	<p>VI. Immediate response</p> <p>A. Mitigation</p> <p>1. Hazards</p> <p>B. Response</p> <p>4. Prepare for patient surge</p>	
<p>VIII. Support roles of the surgical technologist during a disaster</p> <p>A. DMAT</p> <p>D. Support triage roles</p> <p>F. Volunteer</p> <p>1. Preregistration</p> <p>a. Emergency System for the Advance Registration of Volunteer Health Professionals (ESAR-VHP)</p> <p>2. Community Emergency Response Team (CERT)</p>		

6 th ed. Biopsychosocial Needs of the Patient	7 th ed. Needs of the Patient	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Discuss the basic physical and biological needs required to sustain life. 2. Compare and contrast various spiritual and cultural needs of the surgical patient. 3. Demonstrate appropriate behavior in response to the needs manifested by the surgical patient. 4. Analyze and describe the potential psychological needs of the surgical patient and family. 5. List and describe potential sources of anxiety and fears of the surgical patient. 6. Identify and discuss the specific needs of the special populations. 	<p>Objectives</p> <ol style="list-style-type: none"> 1. Evaluate the holistic needs of the surgical patient. 2. Identify responses in relation to the needs of the patient population. 3. Discuss the needs of susceptible populations. 	
<p>Content</p>	<p>Content</p>	
<p>I. Maslow's Hierarchy of Needs</p> <ol style="list-style-type: none"> A. Physical and physiological needs B. Psychological needs C. Social needs D. Spiritual needs 	<p>I. Holistic Needs</p> <ol style="list-style-type: none"> B. Maslow's Hierarchy 	
<p>II. Special population</p> <ol style="list-style-type: none"> B. Geriatrics C. Bariatrics G. Physically challenged patient H. Mentally challenged patient <ol style="list-style-type: none"> 1. Disabilities (Down's syndrome, etc.) 2. Post-traumatic stress syndrome (PTSD) J. Trauma patient 	<p>II. Susceptible patient populations</p> <ol style="list-style-type: none"> A. Communication barriers <ol style="list-style-type: none"> 1. Nonphysical 2. Physical C. Intellectually disabled D. Mental or physical trauma E. Older adult I. Person with mental health history K. Physically disabled M. Unhealthy BMI 	

K. Language barriers		
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6 th ed. Death and Dying	7 th ed. Death and Dying	Notes
Objectives 1. Evaluate attitudes, beliefs, and classifications regarding death and dying. 3. Debate quality of life vs. quantity of life. 4. Trace the steps that are implemented when a patient death occurs in the operating room	Objectives 1. Evaluate perceptions regarding death and dying. 2. Define the various causes of death. 3. Discuss the definitions of death. 6. Analyze quality vs. quantity of life. 7. Evaluate the process when a patient death occurs in the operating room. 8. Discuss the issues regarding organ and tissue recovery from deceased individual. 9. Discuss the issues related to suicide.	
Content I. Death and dying D. Responses to loss/grief (Kubler-Ross) 1. Denial 2. Anger 3. Bargaining 4. Depression 5. Acceptance E. Quality of life vs. quantity of life 7. Advance directives a. Living will b. Durable power of attorney 8. Do not resuscitate (DNR) a. Medical b. Surgical	Content I. Death and dying B. Causes of death 4. Suicide D. Responses to loss 1. Grief a) Complicated b) Disenfranchised F. Death of a patient in the operating room 1. Debriefing sessions 3. Notification c) Mortician G. Coping strategies	

<p>G. Coping strategies</p> <ol style="list-style-type: none"> 1. Empathy 2. Grieving process 3. Share feelings with others 4. Fears 5. Team effort 6. Support groups for staff members 7. Support groups for bereaved families 8. Chaplain/clergy <p>H. Organ and tissue recovery and transplantation</p> <ol style="list-style-type: none"> 1. Organ and tissue recovery <ol style="list-style-type: none"> a. Establishing death 2. Transplantation 	<p>H. Organ and tissue recovery and transplantation</p> <ol style="list-style-type: none"> 1. Organ and tissue recovery <ol style="list-style-type: none"> a) Determination of death 2. Transplantation <ol style="list-style-type: none"> a) Ethical implications <p>I. Implications of suicide</p>	
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7th ed. “Information Technology”

NOTE: No items from 6th ed. are included in 7th ed.

Objectives

1. Describe the basic components of a computer system.
2. Evaluate basic electronic medical records (EMR) systems used.
3. Evaluate safe practices for implementing information technology.
4. Describe best practices in securing protected health information (PHI).

Content

- I. Computer systems
 - A. In the surgical setting
 1. Basic computer components
 2. Computer application and document processing
 3. Computer hardware
 - B. Hospital digital scheduling boards
 - C. EMR systems

II. Safe practice

- A. Bar code systems
- B. Counts and retained foreign bodies
- C. Digital documentation
- D. Instrument tracking
- E. Medication tracking
- F. Patient identification
- G. Patient transportation
- H. Verification

III. Patient confidentiality and securing PHI

- A. Access relevant patient information
- B. Keep login information secure
- C. Log out of terminals after use
- D. Remove patient identifiers from scheduling boards

6 th ed. Electricity	7 th ed. Electricity	Notes
Objectives 1. Describe the principles of electricity and electrical flow. 2. Demonstrate electrical knowledge as it relates to patient safety.	Objectives 1. Define terminology. 2. Describe the principles of electrical flow. 3. Describe the various components of the electrosurgical unit. Skill Applications: 1. Demonstrate electrical safety 2. Demonstrate knowledge of operating the electrosurgical unit.	
Content	Content	
I. Terms K. Hertz L. Load M. Cycle	I. Define and describe	

II. Basic principles of electrical flow A. Electron theory B. Magnetism C. Volts D. Amps	III. Components of the ESU A. Bipolar B. Monopolar	
IV. Electrical safety F. Fire triangle component	IV. Electrical safety C. Fire risk assessment	

6 th ed. Equipment: Lasers	7 th ed. Lasers	Notes
		6 th ed. "Lasers" is in the document "Equipment". 7 th ed. "Lasers" is a new document.
Objectives	Objectives 1. Describe the biophysics of lasers. 2. Discuss the advantages of using lasers. 3. Describe the types of lasers. 4. Describe the specific applications of each type of laser. 5. Demonstrate proper care and handling of surgical lasers. 6. Demonstrate patient and healthcare provider safety in relationship to lasers in a surgical setting.	
Content	Content	
I. Lasers A. Laser biophysics 1. Laser-tissue interaction 2. Laser versus electrosurgery 3. Laser wavelengths and colors 4. Laser system parts B. Laser benefits	I. Biophysics	
	II. Advantages	

<p>D. Laser safety</p> <ol style="list-style-type: none"> 3. Eye protection <ol style="list-style-type: none"> a. Surgical team b. Patient 4. Controlled treatment zone <ol style="list-style-type: none"> a. Signs b. Zone region 5. Use of backstops 6. Use of mirrors 7. Use of non-reflective instruments 8. Endoscopic precautions 9. Foot pedals 10. Electrical hazards 11. Transportation hazards 12. Patient safety <ol style="list-style-type: none"> a. Non-flammable endotracheal tube b. Wet draping towels c. Wet sponges d. Rectal packing 13. Laser safety checklist <ol style="list-style-type: none"> a. Knowledge of laser control panel 	<p>IV. Safety for surgical team and patient</p> <p>B. Laser safety checklist</p> <p>D. Protection</p>	
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6 th ed. "Equipment" & "Robotics"	7 th ed. Minimally Invasive Applications	Notes
		6 th ed. "Endoscopes" is in "Equipment" and "Robotics" is a separate document. 7 th ed. "Endoscopy" and "Robotics" are in the new document "Minimally Invasive Applications".
Objectives	Objectives 1. Discuss the applications of each type of MIS system.	All objectives from the 6 th ed. "Robotics" are deleted.

	<p>2. Discuss the advantages of each type of MIS system.</p> <p>3. Discuss the risks associated with the use of each type of MIS system.</p> <p>4. Discuss the components of minimally invasive systems.</p>	
<p>Content</p>	<p>Content</p>	
<p>From “Equipment”:</p> <p>III. Specialty equipment</p> <p>E. Endoscopes</p>	<p>I. MIS systems</p> <p>A. Endoscopy</p> <ol style="list-style-type: none"> 1. Applications 2. Advantages 3. Risks <p>B. Robotics</p> <ol style="list-style-type: none"> 1. Overview <ol style="list-style-type: none"> a) Terminology b) Accessories and emerging technology <ol style="list-style-type: none"> 1) Firefly c) Components d) Docking e) Draping f) Troubleshooting 2. Applications 3. Advantages 4. Risks <p>C. Navigation</p> <ol style="list-style-type: none"> 1. Components <ol style="list-style-type: none"> a) Computed tomography (CT) b) Magnetic resonance imaging (MRI) c) O-arm d) Ultrasound 	

	<ul style="list-style-type: none"> 2. Applications <ul style="list-style-type: none"> a) Fiducial markers 3. Advantages 4. Risks 	
<p>All content in “Robotics” is deleted.</p> <p>I. Terms</p> <p>II. Robotic system</p> <p>III. Other technologies</p> <ul style="list-style-type: none"> A. Navigation systems 		

7th ed. “Interventional Radiology Applications”

NOTE: New document.

Objectives: The learner will:

1. Describe the purpose of interventional radiology (IR).
2. Discuss the considerations for the use of IR.
3. Describe imaging modalities.
4. Evaluate the role of the surgical technologist.

Content:

- I. Concepts
 - A. Purpose
 1. Diagnostic
 2. Therapeutic
 - B. Patient preparation
- II. Considerations
 - A. Anatomical access
 - B. Patient complications
 - C. Environment
 1. IR suite
 2. Standard OR

D. Radiation safety

1. Patient
2. Surgical team

E. Item selection and use

1. Catheters
2. Contrast media

III. Imaging modalities

- A. Computer tomography (CT)
- B. Digital fluoroscopy
- C. Magnetic resonance imaging (MRI)
- D. Nuclear medicine
- E. Sonography

IV. Role of the surgical technologist

7 th ed. Equipment	Notes
<p>Objectives</p> <p>Didactic:</p> <ol style="list-style-type: none"> 1. Identify the purposes of the various types of equipment. 2. Review the uses of the various types of equipment. 3. Describe the perioperative handling of equipment. <p>Skill Applications:</p> <ol style="list-style-type: none"> 1. Demonstrate the assembly of various types of equipment. 2. Demonstrate the use of various types of equipment. 3. Demonstrate the care of various types of equipment. 	<p>“Equipment” consists of multiple 6th ed. documents. Therefore, only the 7th ed. document is presented.</p>
<p>Content</p> <p>I. Basic equipment</p> <p>A. OR table</p> <ol style="list-style-type: none"> 1. Attachments and positioning aids <ol style="list-style-type: none"> a) Anesthesia screen b) Arm boards c) Chest rolls d) Foot boards e) Gel positioning and padding aides f) Headrest g) Restraints h) Sleds i) Stirrups <p>B. Furniture</p> <ol style="list-style-type: none"> 1. Back table 2. IV poles 3. Kick bucket 4. Mayo stand 5. Prep stand 6. Ring stand 	<p>“OR table” moved from “Positioning”, 6th edition.</p>

<p>C. Lights</p> <ol style="list-style-type: none"> 1. Ceiling 2. Headlights 3. Portable <p>D. Video tower or boom</p> <ol style="list-style-type: none"> 1. Camera box 2. Insufflation unit and CO₂ source 3. Light source 4. Monitor 5. Shaver system 6. Thermal energy source <p>E. Hyperthermia and hypothermia unit</p> <ol style="list-style-type: none"> 1. Types <ol style="list-style-type: none"> a) Blanket b) Fluids <p>F. Electrosurgical unit (ESU)</p> <ol style="list-style-type: none"> 1. Bipolar 2. Monopolar <p>G. Sequential compression devices (SCD)</p> <p>H. Suction system</p> <p>I. Tourniquet system</p> <p>J. Patient transfer device</p>	<ul style="list-style-type: none"> • “Lights” moved from “Equipment”, 6th ed. • “Video tower or boom” moved from “Equipment”, 6th ed. • “Hyperthermia and hypothermia unit” moved from “Pharmacology and anesthesia”, 6th ed. • “Electrosurgical unit (ESU)” moved from “Hemostasis”, 6th ed. • “Sequential compression devices (SCD)” moved from “Equipment”, 6th ed. • “Suction system” moved from “Equipment”, 6th ed. • “Tourniquet system” moved from “Equipment” and “Hemostasis”, 6th ed. • “Patient transfer device” moved from “Transfer”, 6th ed. Also addressed in “Physical Preparation of the Patient”, 7th ed.
<p>II. Specialty equipment</p> <p>A. OR table</p> <ol style="list-style-type: none"> 1. Specialty <ol style="list-style-type: none"> a) Bariatric b) Fracture c) Spine d) Urology 2. Attachments and positioning aids <ol style="list-style-type: none"> a) Drain pans b) Hand table c) Head rests/stabilizers 	

<p>d) Leg holder e) Pegboard f) Shoulder g) Side extenders h) Vacuum bag</p>	
<p>B. Basin warmer C. Cardiopulmonary bypass machine D. C-arm H. Image guidance system I. Irrigating bipolar system J. Liposuction system K. Low thermal radiofrequency device 1. Uterine ablator M. Nerve monitoring device N. Phacoemulsifier O. Robotic systems 1. Patient cart 2. Surgeon console 3. Vision cart P. Slush machine Q. Smoke evacuator R. Ultrasonic unit S. Vacuum curettage machine</p>	<ul style="list-style-type: none"> • “Robotic systems” moved from “Robotics”, 6th ed. Also see “Minimally Invasive Applications”, 7th ed. • “Ultrasonic unit” also listed in “Hemostasis” in 6th ed. as “Ultrasonic scalpel/coagulator”.
<p>III. Perioperative handling A. Preoperative 1. Arranging 2. Damp dusting B. Intraoperative 1. Testing for use 2. Troubleshooting C. Postoperative 1. Care 2. Cleaning</p>	

3. Tag for repair

6 th ed. Instrumentation	7 th ed. Instrumentation	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Identify the classifications, names, parts, materials, finishes, and uses of basic surgical instrumentation. 2. Explain the relationship between instrument type and usage. 	<p>Objectives</p> <p>Didactic:</p> <ol style="list-style-type: none"> 1. Identify the manufacturing characteristics of surgical instruments. 2. Compare the grades of surgical instruments. 3. Describe the categories of surgical instruments. 5. Evaluate perioperative instrumentation handling concepts. <p>Skill Applications:</p> <ol style="list-style-type: none"> 1. Demonstrate perioperative instrument handling. 2. Demonstrate proper transport of instrumentation. 	
<p>Content</p>	<p>Content</p>	
<p>I. Instruments</p> <ol style="list-style-type: none"> A. Classifications <ol style="list-style-type: none"> 7. Microinstrumentation 9. Retracting/exposing 11. Stapling C. Materials <ol style="list-style-type: none"> 1. Alloys 	<p>I. Instrumentation concepts</p> <ol style="list-style-type: none"> A. Composition B. Finishes <ol style="list-style-type: none"> 2. Diamond dusted (jaws or tips) 3. Gold plated C. Inserts <ol style="list-style-type: none"> 1. Diamond <ol style="list-style-type: none"> a) Blade 2. Tungsten carbide 	<p>“Stapling”, 6th ed. moved to “Surgical Supplies”, 7th ed.</p>

	<p>D. Grades</p> <ol style="list-style-type: none"> 1. Disposable 2. Floor grade 3. Surgical <p>E. Categories</p> <ol style="list-style-type: none"> 1. Handheld <ol style="list-style-type: none"> a) Parts <ol style="list-style-type: none"> 2) Handles <ol style="list-style-type: none"> (b) Pistol grip (c) Spring b) Classifications <ol style="list-style-type: none"> 8) Retracting <ol style="list-style-type: none"> (a) Hand-held (b) Self-retaining <ol style="list-style-type: none"> (1) Ratcheted (2) Bed attachments 2. Powered <ol style="list-style-type: none"> a) Burs b) Dermatomes c) Drills d) Reamers e) Saws 3. Endoscopic <ol style="list-style-type: none"> a) Parts and accessories <ol style="list-style-type: none"> 1) Camera 2) Eyepiece 3) Lens 4) Light cord 5) Light post 6) Telescope 	<ul style="list-style-type: none"> • “Powered” moved from “Equipment”, 6th ed. • “Endoscopic” moved from “Equipment”, 6th ed.

	<ul style="list-style-type: none"> b) Uses <ul style="list-style-type: none"> 1) Diagnostic 2) Operative c) Flexible d) Rigid 4. Robotic <ul style="list-style-type: none"> a) Single port b) Multi-port 	<ul style="list-style-type: none"> • “Robotic”: Also refer to “Minimally Invasive Applications”, 7th ed. in case you, as the educator, wish to condense the core curriculum robotic items into one program syllabus.
	<p>II. Specialty instrumentation</p> <ul style="list-style-type: none"> A. Cardiothoracic B. General C. Genitourinary D. Neurosurgical E. Obstetrics and gynecology F. Ophthalmology G. Oral and maxillofacial H. Orthopedic I. Otorhinolaryngology J. Peripheral vascular K. Plastics and reconstructive 	
	<p>III. Perioperative handling</p> <ul style="list-style-type: none"> A. Preoperative <ul style="list-style-type: none"> 1. Inspection (<i>See Establishing the Sterile Field</i>) <ul style="list-style-type: none"> a) Cleanliness b) Damage c) Functionality 	

	<p>B. Intraoperative (See <i>Maintaining the Sterile Field</i>)</p> <ol style="list-style-type: none"> 1. Procedural concepts <ol style="list-style-type: none"> a) Clamp, clamp, cut, tie (CCCT) b) Hand signals c) Maintenance d) Organization e) Passing 2. Point-of-use (POU) preparation <ol style="list-style-type: none"> a) Disassembly b) Fragile items <ol style="list-style-type: none"> 1) Cameras 2) Endoscopes 3) Micro-instruments c) Loaner and vendor trays d) Pre-cleaning e) Repairs and replacements f) Sharps <ol style="list-style-type: none"> 1) Isolation 2) Disposal <p>C. Postoperative (See <i>Breaking Down the Sterile Field</i>)</p> <ol style="list-style-type: none"> 1. Transport <ol style="list-style-type: none"> a) Closed cart b) Open cart 	<ul style="list-style-type: none"> • “Procedural concepts” moved from “Perioperative Case Management”, 6th ed. • “Transport” moved from “Perioperative Case Management”, 6th ed.
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7 th ed. Surgical Supplies	Notes
	<p>“Surgical Supplies” is a new document. It consists of items from 6th edition documents as well as new items. Only the 7th edition document is presented. The following is the list of 6th edition documents from which items were moved into “Surgical Supplies”:</p> <ul style="list-style-type: none"> • Catheters and Drains • Draping • Hemostasis • Instrumentation • Tissue Replacement Materials: 6th ed. everything deleted except autograft and allograft moved into 7th ed.
<p>Objectives</p> <p>Didactic:</p> <ol style="list-style-type: none"> 1. Identify surgical supplies. 2. Explain the usage of surgical supplies. 3. Explain the principles of handling the various types of surgical supplies. 4. Evaluate selection of surgical supplies. <p>Skill Applications:</p> <ol style="list-style-type: none"> 1. Demonstrate the role of the surgical technologist in the application of surgical supplies. 	
<p>I. Basic Supplies</p> <p>A. Blades</p> <ol style="list-style-type: none"> 1. Types 2. Characteristics <ol style="list-style-type: none"> a) Shape b) Size c) Safety 	

<p>B. Drains</p> <p>2. Characteristics</p> <p>a) Flat</p> <p>b) Open or closed</p> <p>c) Reservoir</p> <p>d) Tube</p> <p>3. Materials</p> <p>d) Silastic</p> <p>4. Mechanism of action</p> <p>a) Active</p> <p>2) Negative pressure</p> <p>(a) Vacuum-assisted closure (VAC)</p> <p>b) Passive</p> <p>(b) Sump</p> <p>C. Draping materials</p> <p>E. Electrosurgical</p> <p>F. Injection needles</p> <p>G. Ligating clips</p> <p>H. Sponges</p> <p>I. Staplers</p> <p>J. Sterile containers</p> <p>K. Sterile field management</p> <p>L. Suction</p> <p>M. Syringes</p>	<ul style="list-style-type: none"> • “Drains” moved from “Catheters and Drains”, 6th edition. • Section C is new. • Section D is new. • Section F is new. • Section G is new. • Section H is new. • “Staplers” moved from “Instrumentation”, 6th edition. Items listed under “Staplers” is new content. • Section J is new. • Section K is new. • “Suction” moved from “Equipment”, 6th edition. Items listed under “Suction” is new content. • Section M is new.
<p>II. Specialty supplies</p>	<p>Section II is new except for a few items listed in “L”.</p>
<p>III. Perioperative handling</p>	<p>Section III is new.</p>

7 th ed. Asepsis and Sterile Technique	Notes
	There are four revised items in the 7 th edition document.
<p>Objectives Didactic:</p> <ol style="list-style-type: none"> 1. Describe the terms related to asepsis and sterile technique. 2. Apply concepts related to asepsis. 3. Evaluate sources of contamination. 4. Discuss principles and practices of sterile technique. 	
<p>Content</p>	
<p>II. Concepts</p>	Section II is new.
<p>IV. Principles of asepsis</p> <ol style="list-style-type: none"> A. A sterile field is created for each surgical procedure. <ol style="list-style-type: none"> 7. Bottles or containers of sterile solutions or medications must not be recapped or re-poured once opened. 8. Sterile and nonsterile team members must verify processing and package integrity of sterile items prior to placing them in the sterile field. B. Sterile team members must be appropriately attired prior to entering the sterile field. <ol style="list-style-type: none"> 1. Self-gowning and gloving is performed on a separate surface other than an open back table. 2. Closed gloving is used by persons transitioning into the sterile role when unassisted. Open gloving is used by nonsterile persons to perform sterile tasks, for example, urinary catheterization. 5. The bias stockinette cuff of the surgical gown is considered contaminated once the hand has passed through it. The cuff must always remain inside of the sterile gown. 	

<p>C. Movement in and around the sterile field must not compromise the field.</p> <ol style="list-style-type: none"> 1. Nonsterile persons may not touch, reach across, lean over, or pass over a sterile field. 3. Nonsterile individuals must maintain a minimum of 12" distance from sterile individuals, items, or areas. 4. Sterile items, such as the back table and Mayo stand, must be positioned a minimum of 12" from nonsterile areas. 5. Sterile team members pass one another either face to face or back-to-back. 6. Movement and talking within the sterile field should be kept to a minimum. 7. Sterile persons should sit only when an entire procedure will be done in the sitting position. 8. When a sterile person comes within 12" of a nonsterile person or area for the purpose of applying a sterile gown or drapes, the sterile person must protect their sterile gloves by cuffing the gown or drape prior to approaching the nonsterile person or area. 	
<p>V. Options for addressing a breach in asepsis</p>	
<p>A. Remove</p>	
<p>B. Isolate and cover with an impervious barrier</p>	
<p>C. Acknowledge and report</p>	

6 th ed. Methods of Disinfection & Sterilization	7 th ed. Sterile Processing	Notes
		“Sterile Processing” is a combination of “Methods of Disinfection” and “Sterile Storage and Distribution”, 6 th edition.
Objectives	Objectives	
<ul style="list-style-type: none"> • “Methods of Disinfection and Sterilization” nine objectives are revised. • “Sterile Storage and Distribution”: Objectives 1, 3, and 6 are deleted. Objectives 2 and 4 are revised. Objective 5 left in place unrevised. 	<ul style="list-style-type: none"> • Nine didactic objectives reflect being revised. • 1 and 2 of the Skill Applications are new and 3 is left in place unrevised. 	
Content	Content	
I. Definitions B. Disinfection 1. Terminal disinfection C. Sterilization 1. Terminal sterilization 2. Final sterilization	I. Terminology B. Biofilm C. Decontamination 1. Cavitation D. Disinfection 1. Disinfectant 2. Thermal	
II. Terminal disinfection and sterilization A. Concepts B. Considerations 3. Lumens C. Concepts of disinfection 1. Factors affecting disinfectant efficiency 4. Actions of disinfecting agents c. Emulsification d. Solubilization	II. Decontamination A. Purpose B. Safety precautions 1. Personal protective equipment C. Point of use preparation 1. Handling concepts a) Cords b) Delicate instruments c) Disassembly d) Isolation and disposal of sharps	

<p>D. Methods</p> <ol style="list-style-type: none"> 1. Manual washing and disinfection <ol style="list-style-type: none"> a. Process b. Types of chemical cleaners c. Considerations 2. Washer-decontaminator 3. Washer-sterilizer <ol style="list-style-type: none"> a. Process b. Types of chemical cleaners c. Considerations 4. Ultrasonic cleaner <ol style="list-style-type: none"> c. Considerations 	<ol style="list-style-type: none"> e) Transport 2. Pre-cleaning sprays and foams 	
<p>III. Instrument preparation and wrapping</p> <ol style="list-style-type: none"> A. Process 2. Instrument preparation <ol style="list-style-type: none"> a. Instrument assembly or disassembly b. Contents protection 3. Packaging methods <ol style="list-style-type: none"> a. Performance standards of wrapping material <ol style="list-style-type: none"> (1) Maintain sterility of items (2) Easy removal of items (3) Sterilizing agent reach all surfaces b. Performance characteristics of wrapping material <ol style="list-style-type: none"> (3) Sterilization suitability 	<p>III. Cleaning</p> <ol style="list-style-type: none"> A. Purpose B. Standards of cleaning C. Factors that impact cleaning D. Detergents <ol style="list-style-type: none"> 2. High alkaline 3. Organic E. Methods <ol style="list-style-type: none"> 1. Manual <ol style="list-style-type: none"> a) Cleaning tools <ol style="list-style-type: none"> 1) Power nozzles b) Considerations <ol style="list-style-type: none"> 1) Disassembly 2) Instrument channels 3) Loaner instruments 5) Power equipment c) Process d) Types of chemical cleaners 	

e. Sterilization trays and cases

(2) Advantages

(3) Disadvantages

(4) Case locking devices

5. Concepts of loading packages on sterilizer cart

2. Mechanical

a) Washer-disinfector

2) Loading

4) Quality assurance monitoring

b) Ultrasonic cleaner

1) Considerations

(a) Instrument channels

(b) Lumens

2) Loading

4) Quality assurance monitoring

c) Endoscope re-processor

1) Process

2) Quality assurance monitoring

d) Cart washers

1) Process

2) Quality assurance monitoring

3. Specialty instrumentation

a) Endoscopes

1) Flexible

(a) Camera

2) Rigid

(a) Camera

(b) Light cord

b) Laparoscopic

c) Micro-instruments

1) Ophthalmic

2) Plastics and reconstruction

3) Vascular

d) Robotic

e) Quality assurance monitoring

IV. Sterilization

A. Considerations

1. Related to the items to be sterilized
 - b. Bioresistance
 - c. Bioshedding of the packaging material
 - d. Biostate
 - g. Nutritional status of the microbe(s)
2. Related to the sterilization process
 - a. Mechanical process indicators
 - (3) Humidity
 - (a) Saturation
 - b. Purity of the agent
 - c. Purity of the air
 - e. Capacity of the autoclave
 - f. Cost

B. Sterilization agents

1. Steam under pressure
 - a. Microbial destruction
 - (1) Denaturation of cellular protein
 - e. Biological monitor
 - (2) Types of test packs
 - (4) Incubation and reading results
 - (5) Frequency of BI monitoring
2. Chemical
 - a. Ethylene oxide (EtO)
 - (1) Microbial destruction
 - (a) Interferes with protein metabolism
 - (2) Uses

F. Suspicion of prion contamination

(3) Parameters

(6) Biological monitor

(b) Types of test packs

(e) Frequency of BI monitoring

(f) Implantables

b. Glutaraldehyde

(1) Microbial destruction

(a) Denaturation of cellular protein

(2) Uses

(3) Parameters

c. Peracetic and acetic acid

(1) Microbial destruction

(a) Reacts with cellular systems

(2) Uses

(3) Parameters

d. Hydrogen peroxide plasma

(1) Microbial destruction

(a) Interferes with cell membrane, enzymes, nucleic acid

(2) Uses

(3) Parameters

e. Ozone gas

(1) Microbial destruction

(a) Oxidizes bacteria

(2) Uses

(3) Parameters

IV. Disinfection

A. Terminology

1. Bactericidal

2. Fungicidal

3. Sporicidal

4. Tuberculocidal

5. Virucidal

C. Factors that affect efficiency

1. Amount of bioburden

2. Device composition

3. Disinfectant concentration

4. Duration of exposure

5. Moisture

6. Physical factors

a) Temperature

b) Humidity

c) pH

7. Resistance of microbes

D. Types of disinfectant agents

1. Alcohol

a) Action

b) Advantages

c) Disadvantages

d) Uses

2. Glutaraldehyde

a) Action

b) Advantages

c) Disadvantages

d) Uses

Terms are new to “Sterile Processing”, 7th ed. Also see “Asepsis and Sterile Technique”, 7th ed. where terms are repeated.

<p>f. Chlorine dioxide gas</p> <ul style="list-style-type: none"> (1) Microbial destruction <ul style="list-style-type: none"> (a) Interferes with cellular processes (2) Uses (3) Parameters (4) Advantages (5) Disadvantages <p>3. Ionizing radiation</p> <ul style="list-style-type: none"> (a) Microbial destruction <ul style="list-style-type: none"> (1) Disrupts DNA (b) Uses (c) Parameters (d) Advantages (e) Disadvantages 	<p>3. Orthophthalaldehyde (OPA)</p> <ul style="list-style-type: none"> a) Action b) Advantages c) Disadvantages d) Uses <p>E. Safety precautions</p>	
	<p>V. Preparation</p> <p>A. Process</p> <ul style="list-style-type: none"> 2. Assembly and disassembly <ul style="list-style-type: none"> a) Special considerations <ul style="list-style-type: none"> 1) Basin sets 2) Powered instruments 3. Organization <ul style="list-style-type: none"> a) Count sheet 5. Loading and unloading <ul style="list-style-type: none"> a) Sterilization cart <p>B. Packaging concepts</p> <ul style="list-style-type: none"> 1. Advantages vs disadvantages 2. Considerations <ul style="list-style-type: none"> a) Item protection <ul style="list-style-type: none"> 1) Corners 2) Weight of instrument trays 	

	<ul style="list-style-type: none"> 3. Materials <ul style="list-style-type: none"> a) Dust covers c) Sterilization trays and cases <ul style="list-style-type: none"> 2) Types d) Wrapped <ul style="list-style-type: none"> 2) Types <ul style="list-style-type: none"> (a) Disposable nonwoven (b) Reusable woven 3) Methods of application <ul style="list-style-type: none"> (a) Sequential (b) Simultaneous 4. Performance characteristics <ul style="list-style-type: none"> f) Sterilizing agent penetration 	
	<p>VI. Sterilization</p> <ul style="list-style-type: none"> A. Concepts <ul style="list-style-type: none"> 1. Related to the items to be sterilized <ul style="list-style-type: none"> c) Human prion diseases B. High temperature <ul style="list-style-type: none"> 1. Steam <ul style="list-style-type: none"> a) Methods <ul style="list-style-type: none"> 1) Dynamic air removal b) Mechanism of action <ul style="list-style-type: none"> 1) Contact <ul style="list-style-type: none"> (c) Moisture c) Concepts <ul style="list-style-type: none"> 2) Considerations <ul style="list-style-type: none"> (a) Preparation (b) Loading (c) Unloading 3) Cycles <ul style="list-style-type: none"> (a) Conditioning (b) Exposure 	

(c) Exhaust

(d) Drying

4) Monitoring

(b) Biological

(4) Process challenge

packs

(5) Incubation and results

C. Low temperature

1. Ethylene oxide (EtO)

a) Mechanism of action

1) Concentration of gas

2) Exposure time

3) Humidity

4) Temperature

c) Monitoring

1) Administrative

2) Biological

(c) Process challenge packs

3) Chemical indicators (CI)

(a) Physical

2. Hydrogen peroxide

a) Types

1) Low temperature gas plasma

(95% H₂O₂)

2) Vaporized hydrogen peroxide

(59% H₂O₂)

b) Mechanism of action

1) Time

2) Temperature

3) Sterilant concentration

	<ul style="list-style-type: none"> d) Considerations <ul style="list-style-type: none"> 1) Preparation 2) Packaging materials 3) Handling <ul style="list-style-type: none"> (a) Loading (b) Unloading e) Monitoring <ul style="list-style-type: none"> 1) Biological <ul style="list-style-type: none"> (a) <i>Geobacillus stearothermophilus</i> 2) Chemical indicators (CI) 3) Physical D. Miscellaneous <ul style="list-style-type: none"> 1. Chlorine dioxide gas <ul style="list-style-type: none"> a) Mechanism of action 2. Dry heat <ul style="list-style-type: none"> a) Mechanism of action b) Advantages vs. disadvantages 3. Glutaraldehyde <ul style="list-style-type: none"> a) Mechanism of action 4. Ionizing radiation <ul style="list-style-type: none"> a) Mechanism of action 5. Ozone (trioxygen) <ul style="list-style-type: none"> a) Mechanism of action 6. Vaporized peracetic acid <ul style="list-style-type: none"> a) Mechanism of action 	

6 th ed. Sterile Storage and Distribution		
<p>I. Sterile storage</p> <ul style="list-style-type: none"> A. Systems B. Parameters C. Shelf D. Event related sterility E. Handling 2. Inspection 4. Out dates 	<p>VII. Storage and distribution</p> <p>A. Sterile storage</p> <ul style="list-style-type: none"> 1. Arrangement of sterile supplies <ul style="list-style-type: none"> a) Shelving <ul style="list-style-type: none"> (1) Open (2) Closed b) Storage bins c) Shipping containers 2. Event related sterility <ul style="list-style-type: none"> a) Advantages b) Disadvantages 3. Manufacturer package symbols 4. Storage containers <ul style="list-style-type: none"> a) Moisture b) Dust and dirt c) Package damage 5. Inventory <ul style="list-style-type: none"> a) Arrangement of sterile supplies <ul style="list-style-type: none"> (3) Out dates <ul style="list-style-type: none"> (a) Manufacturer processed items (5) Inventory control <p>B. Distribution</p> <ul style="list-style-type: none"> 1. Systems <ul style="list-style-type: none"> a) Automated b) Case cart <ul style="list-style-type: none"> 1) Surgeon preference cards c) Demand distribution and requisition d) Case cart e) Just-in-time delivery 	

II. Distribution A. Systems B. Selection of inventory C. Delivery E. Record keeping F. Safety practices	f) Par level replenishment g) Specialty cart 3. Tracking	
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6 th ed. Attire	7 th ed. Surgical Attire	Notes
Objectives 1. Recognize appropriate surgical attire. 2. Employ principles involved in donning surgical attire.	Objectives Didactic: 1. Identify select types of surgical attire. 2. Describe the purposes of surgical attire. 3. Identify the types of accessory attire. 4. Discuss restrictions involving surgical attire. Skill Applications: 1. Demonstrate the principles involved in donning and doffing the surgical attire.	
I. Basic OR attire B. Hair covering 1. Surgeon's cap 2. Bouffant 3. Surgical hood	I. Surgical attire (See <i>Establishing the Sterile Field</i>) A. Head covering	
II. Accessory attire B. Personal protective equipment 1. Face protection 2. Eye protection c. Eye glass side inserts	II. Accessory attire C. Personal protective equipment (PPE) 1. Eye protection a) Face shield 2. Helmet or hood system	
III. Restrictions E. Name tag/ID 1. Confine when around neck	III. Application A. Selection	

	IV. Restrictions E. Makeup F. Non-surgical attire I. Tattoos 1. Offensive 2. Compromised skin integrity	
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NOTE: 7th ed. “Establishing the Sterile Field” is a new document. Material from “Perioperative Case Management”, 6th edition is included in the new document; however, the new document is expanded.

Objectives: The learner will:

Didactic:

1. Describe the principles associated with establishing the sterile field.
2. Explain the steps for preparing an operating room.
3. Describe the use of the surgeon’s preference card.
4. Describe the concepts that are applied for opening sterile items.
5. Explain the sequence of opening sterile supplies.
6. Explain the steps for organizing the back table.
7. Explain the steps for organizing the Mayo stand.
8. Describe the final steps required to finish establishing the sterile field.
9. Analyze special circumstances that require adjusting the normal routine for establishing the sterile field.

Skill Applications:

1. Demonstrate opening sterile supplies.
2. Demonstrate the procedure to correct contaminations during the opening process.
3. Demonstrate the process of organizing the sterile field.
4. Demonstrate the principles of economy of motion
5. Demonstrate the principles of spatial awareness when organizing the sterile field.
6. Demonstrate the finalization of the sterile field.

7. Demonstrate modifications to setting up the sterile field that must be taken when a special circumstance occurs.

Content:

- I. Concepts
 - A. Monitoring²
 1. Item inspection¹
 2. Surgical conscience
 3. Traffic¹
 - B. Patient considerations
 1. Allergies
 2. Comorbidities
 3. Height
 4. Physical limitations
 5. Weight
 - C. Principles*
 1. Asepsis (See *Asepsis and Sterile Technique*)
 2. Economy of motion¹
 - D. Purpose
 - E. Sequencing¹
 - F. Timing¹
- II. Preparing the OR¹
 - A. Environment³

1. Air exchange
2. Damp dusting
3. Doors closed
4. Equipment
 - a) Positioning
 - b) Testing
5. Furniture
 - a) Positioning
6. Humidity
7. Temperature
- B.** Personnel⁴
 1. Attire
 2. Medical handwash
 3. PPE
- C.** Surgeon's preference card¹
 1. Collect and verify
 - a) Equipment
 - b) Hold items
 - c) Instrumentation
 - d) Fluids
 - 1) Irrigation
 - 2) Medication(s)
 - 3) Solutions
 - (a) Skin prep
 - e) Patient positioning
 - f) Supplies
 - 1) Dressings
 - 2) Gown and gloves
 - 3) Specialty
 - 4) Suture

*Refer to the following AST Guidelines for specific information regarding content in this section:

1. *Establishing the Sterile Field in the OR*
2. *Monitoring Sterility*
3. *Humidity in the OR*
4. *Surgical Attire, Surgical Scrub, and Hand Hygiene*
5. *Safe Medication Practices in the perioperative Area*
6. *Sharps Safety and Use of the Neutral Zone*
7. *Surgical positioning*
8. *Patient Identification, Correct Surgery Site, and Correct Procedure*
9. *Transfer of Care During Intraoperative Case Management*
10. *Guideline for Counts*
11. *Bowel Technique*
12. *Gowning and Gloving*
13. *Surgical Drapes*
14. *Skin Prep of the Patient*
15. *Handling and Care of specimens*
16. *Use of Eye Protection During Surgical Procedures*

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III. Opening sterile items¹

A. Considerations

- 1. Location**
 - a) Grouping**
 - 1) Increase efficacy**
 - 2) Minimize movements**
- 2. Item delivery**
 - a) Container system(s)**
 - b) Envelope-folded**
 - c) Fluids**
 - d) Medication⁵**
 - e) Peel packs**
- 3. Sequential¹**
 - a) Back table pack**
 - b) Basin set**
 - c) Small wrapped items**
 - d) Peel packs**
 - e) Container system(s)**

B. Sterile technique (See *Asepsis and Sterile Technique*)

C. Verification¹

- 1. Expiration date**
- 2. Filters (container system)**
- 3. Integrity**
 - a) Dust cover**
 - b) Packaging**
 - c) Wrapper**
 - d) Locking mechanisms**
- 4. Sterility**
 - a) Closed ratchets**
 - b) Foreign particles**
 - c) Internal indicators²**

- d) Strike-through or moisture**
- IV. Organization of back table and mayo stand**
 - A. Preparation¹**
 - 1. Personnel**
 - a) Surgical scrub⁴**
 - b) Eye protection¹⁶**
 - 2. Items for use**
 - a) Assembly (as applicable)**
 - 1) Instruments**
 - 2) Supplies**
 - b) Medication⁵**
 - c) Ratchet position**
 - d) Sharps**
 - e) Sleeve or tip protection removal**
 - f) Suture**
 - B. General setup and placement¹**
 - 1. Accessory items**
 - a) Suture bag**
 - 2. Container system(s)**
 - a) Inspection**
 - b) Basket removal**
 - 3. Instrumentation**
 - a) Frequent use**
 - b) Curved**
 - c) Heavy**
 - d) Powered**
 - e) Stringer**
 - 1) Roll towel**
 - 4. Labeling^{1,5}**
 - a) Basin**
 - b) Medicine cup**

- c) Syringes
 - 5. Medication⁵
 - 6. Sharps⁶
 - 7. Supplies
 - 8. Surface reinforcement¹
 - a) Towels
 - 9. Suture
 - C. Considerations
 - 1. Order of use¹
 - a) Gowns and gloves
 - b) Drapes
 - c) Light handle covers
 - d) Cords and tubing
 - 2. Similar items (grouping)¹
 - a) Basins and cups
 - 1) Irrigation
 - 2) Medication
 - 3) Specimen
 - b) Drapes
 - c) Instrument set(s)
 - d) Sharps
 - e) Sponges
 - f) Suture
- V. Finalizing the sterile field
 - A. Prepping the patient¹⁴ (as applicable)
 - B. Gowning and gloving team members¹²
 - C. Draping the patient¹³
 - D. Transitioning of the primary sterile field¹
 - 1. Furniture handling
 - 2. Placement considerations
 - a) Back table

- b) Basin stand
 - c) Cords and tubing
 - d) Non-penetrating securement
 - e) Light handle covers
 - f) Mayo stand
 - g) Neutral zone establishment⁶
 - h) Sponges
 - 3. Time-out⁸
- VI. Special considerations
 - A. Emergent situations
 - 1. Cesarean section
 - 2. Converting to open procedure
 - 3. Trauma
 - B. Priority of tasks
 - C. Procedure classification or specialty
 - 1. Multiple setups^{1,11}
 - D. Reducing contamination¹
 - 1. Corrective interventions
 - a) Item that fell on floor
 - b) Item extending below edge of the sterile field
 - c) Item contacting a nonsterile surface
 - d) Item integrity is compromised
 - e) Foreign particles are present
 - 2. Strategies

6 th ed. Hand Hygiene & Surgical Scrub	7 th ed. Hand Hygiene & Surgical Scrub	Notes
<p>Objectives</p> <p>2. Identify the preliminary preparations for the surgical scrub.</p> <p>4. Employ sterile technique during the surgical scrub.</p>	<p>Objectives</p> <p>Didactic:</p> <p>1. Describe the considerations that are important to maintaining hand and skin integrity.</p> <p>2. Discuss the concepts for performing the medical hand wash.</p> <p>3. Discuss the concepts of the surgical scrub as related to infection control.</p> <p>Skill Applications:</p> <p>2. Demonstrate the steps for preparing to complete a surgical scrub.</p>	
<p>Content</p>	<p>Content</p>	
<p>I. Medical handwash</p> <p>A. Gather needed supplies</p> <p>B. Critical elements</p> <ol style="list-style-type: none"> 1. Remove jewelry 2. Wet wrists and hands 3. Keep fingers pointed downward/hands lower than elbows 4. Avoid contact with non-sterile surfaces 5. Wash to 2" above wrists 6. Do not shake water from hands 7. Dry hands from fingers to wrists 8. Follow healthcare facility policy 	<p>I. Hand and skin integrity</p> <p>A. Care and maintenance</p> <ol style="list-style-type: none"> 1. Cuticles 2. Fingernails 3. Skin <p>B. Considerations</p> <ol style="list-style-type: none"> 1. Allergic reactions 2. Non-intact skin <ol style="list-style-type: none"> a) Abrasions b) Burns c) Cuts d) Infection e) Lesions 3. Overly dry skin 	

<p>II. Surgical scrub</p> <p>A. Preliminary preparation</p> <ol style="list-style-type: none"> 1. Open sterile gown and gloves <ol style="list-style-type: none"> a. Separate surface from sterile set-up 2. Gather appropriate scrub supplies 5. Inspect integrity of nails and skin <p>B. Surgical scrub</p> <ol style="list-style-type: none"> 1. Antiseptic agents 3. Critical elements <ol style="list-style-type: none"> c. Avoid contact with non-sterile surfaces 	<p>II. Medical hand wash</p> <ol style="list-style-type: none"> A. Purpose B. Function C. Situational requirements <ol style="list-style-type: none"> 1. After removal of gloves (surgical or exam) 2. Between patient contact 3. Prior to opening sterile supplies 4. Return from break, consumption, or restroom use D. Technique E. Use of sanitizing agents 	
	<p>III. Surgical scrub</p> <ol style="list-style-type: none"> A. Purpose B. Function C. Preparation <ol style="list-style-type: none"> 1. Scrub brush and solution selection 3. Roll-up sleeves (if applicable) 5. Skin inspection E. Critical elements <ol style="list-style-type: none"> 1. Hand and arm prewash 2. Scrub solutions <ol style="list-style-type: none"> a) Principles of asepsis 3) Clean technique c) Manufacturer's recommendations 	

6 th ed. Gowning and Gloving	7 th ed. Gowning and Gloving	Notes
<p>Objectives</p> <p>1. Employ sterile technique when gowning and gloving self and when assisting other team members.</p>	<p>Didactic:</p> <p>1. Describe the types of surgical gowns and gloves.</p> <p>2. Describe the factors that effect the selection process.</p> <p>3. Describe the methods of gowning.</p> <p>4. Evaluate each method of gloving.</p> <p>Skill Applications:</p> <p>1. Apply the principles of asepsis to gowning and gloving self.</p> <p>2. Apply the principles of asepsis to gowning and gloving other team members.</p>	
<p>Content</p>	<p>Content</p>	
<p>I. Gowning</p> <p>A. Drying hands and arms</p>	<p>I. Types</p> <p>A. Gloves</p> <p>B. Gowns</p>	
<p>IV. Removal of gown and gloves</p> <p>A. For replacement during procedure</p> <p>B. Completion of procedure</p>	<p>II. Selection</p> <p>A. Procedure types</p> <p>B. Protection level</p> <p>C. Surgeon preference</p>	
<p>V. Other gloving techniques</p> <p>A. Open gloving without gown</p> <p>B. Replacing contaminated glove(s) (best-to-least optimal technique 1- 4)</p> <p>1. Replace gown and gloves</p> <p>2. Circulator removes glove; other sterile team member re-gloves</p> <p>3. Circulator removes glove; surgical technologist re-gloves using open technique</p>	<p>III. Application</p> <p>A. Gowning</p> <p>3. Principles of asepsis (See <i>Asepsis and Sterile Technique</i>)</p> <p>B. Gloving</p> <p>2. Self</p> <p>b) Open</p> <p>4. Principles of asepsis</p>	

4. Surgical technologist dons glove over contaminated glove C. Sterile sleeve		
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6 th ed. Surgical Counts	7 th ed. Surgical Counts	Notes
Objectives 1. Discuss the purposes and legal responsibilities of counts. 2. Describe the techniques used to prevent foreign body retention. 3. Discuss when counts should be performed.	Objectives 1. Describe the purpose of surgical counts. 2. Describe the types of documentation. 3. Identify the items that must be counted. 5. Discuss the frequency and timing of surgical counts. 6. Explain the intraoperative sequence for completing surgical counts. 7. Identify when additional counts are necessary.	
Content	Content	
I. Counting A. Purpose B. Legal responsibility 1. Documentation 2. Incorrect counts 3. Omitted counts	I. Concepts A. Purpose 1. Legalities (See <i>Legal Issues and Risk Management</i>)	
II. Concepts A. Technique 2. Order of counts a. Field/Mayo stand/ back table/off-the-field B. Timing 5. Additional counts a. Change of staff C. Methods	II. Considerations A. Countable items and sequence B. Techniques 2. Frequency and timing 3. Intraoperative sequence e) Confirmation f) Documentation C. Additional counts 2. Incorrect count resolutions 3. Transfer of care (staff changes)	

D. Procedure for handling an incorrect count		
E. Electronic methods of tracking counts		
1. Bar coding		
2. Radio-frequency identification		

6 th ed. Draping	7 th ed. Draping	Notes
Objectives 2. Select the appropriate drapes for specific positions and surgical procedures.	Objectives 1. Describe the characteristics of draping materials. 3. Explain the application of drapes to equipment and furniture. 4. Explain the selection of drapes in relation to anatomical regions. 5. Describe the draping sequence as related to surgical procedures.	
Content	Content	
I. Materials A. Characteristics	I. Materials A. Characteristics 1. Anti-static 2. Fire retardant 3. Impervious 4. Lint-free 5. Permeable 6. Puncture resistant 7. Semi-permeable	
II. Types of drapes D. Adhesive 1. Barrier	II. Types (See <i>Supplies</i>) B. Incise	

<p>III. Draping the patient for surgical procedures</p> <p>A. General surgery</p> <p>1. Towel placement and fixation</p> <p>B. Specialty</p>	<p>III. Application</p> <p>A. Equipment</p> <p>1. C-arm</p> <p>2. Microscope</p> <p>3. Robot</p> <p>B. Furniture</p> <p>1. Back table</p> <p>C. Patient</p> <p>1. Anatomical region</p> <p>a) Abdominal</p> <p>b) Extremity</p> <p>c) Head</p> <p>d) Hip</p> <p>e) Perineal</p> <p>f) Shoulder</p> <p>3. Principles of asepsis</p> <p>a) Handling and passing</p> <p>3) Fixation</p> <p>b) Contamination</p> <p>1) Recognition</p> <p>2) Correction</p>	
<p>IV. Draping OR furniture</p> <p>A. Tables</p>		
<p>V. Draping ancillary equipment</p>		

6 th ed. Review of the Chart & Surgical Consent	7 th ed. Perioperative Documentation	Notes
		“Perioperative Documentation” is new consisting of “Review of the Chart” and “Surgical Consent”, 6 th edition.
<p>Objectives Review of the Chart:</p> <ol style="list-style-type: none"> 1. Analyze laboratory reports in relationship to patient diagnosis and intervention. 2. Review the patient chart for completeness. <p>Surgical Consent:</p> <ol style="list-style-type: none"> 1. Analyze the procedure for obtaining information surgical consent. 2. Analyze the legal concepts of obtaining informed surgical consent. 	<p>Objectives Didactic:</p> <ol style="list-style-type: none"> 1. Summarize the purpose of documentation. 2. Describe the documents found in the surgical patient’s chart. 3. Discuss the purpose of an informed consent. 4. Describe the types of informed consent. <p>Skill Application:</p> <ol style="list-style-type: none"> 1. Demonstrate participation in the <i>Surgical Safety Checklist</i> process. 	
Content: Review of the Chart	Content	
<p>I. Review of the chart</p> <ol style="list-style-type: none"> C. Laboratory values 2. Consents <ol style="list-style-type: none"> (a) Anesthesia (b) Operative 4. Preoperative checklist 	<p>I. Documentation</p> <ol style="list-style-type: none"> A. Purpose 	
	<p>II. Chart Review</p> <ol style="list-style-type: none"> F. Surgical Safety checklist 	

Content: Surgical Consent	Content	
<p>I. Purpose</p> <ul style="list-style-type: none"> A. Protection of health care facility B. Protection of health care providers C. Protection of patient D. Protection of physician 	<p>III. Patient Consent</p> <ul style="list-style-type: none"> A. Purpose B. Types <ul style="list-style-type: none"> 1. General 2. Informed <ul style="list-style-type: none"> a) Contents b) Requirements 	
<p>II. Types</p> <ul style="list-style-type: none"> A. Medical 	<p>IV. Surgical Safety Checklist (See <i>Patient ID and Time Out</i>)</p> <ul style="list-style-type: none"> A. Purpose B. Process <ul style="list-style-type: none"> 1. Identification 2. Time-out 	
<p>III. Informed Consent</p> <ul style="list-style-type: none"> A. Understandable language B. No coercion/intimidation C. Proposed surgical procedure or treatment D. Potential complications E. Potential risks of treatment F. Alternative therapies <ul style="list-style-type: none"> 1. Potential risks 		
<p>IV. Contents of consent form</p> <ul style="list-style-type: none"> A. Patient name B. Physician name C. Procedure to be performed <ul style="list-style-type: none"> 1. Lay terminology 2. Medical terminology D. Legal signature E. Witness signature F. Date of signatures G. Time of signatures 		

6 th ed. Patient Identification	7 th ed. Patient Identification and Time-Out Procedure	Notes
<p>Objectives</p> <p>2. Demonstrate the identification process for a surgical patient admitted to the surgical suite.</p>	<p>Objectives</p> <p>Didactic:</p> <ol style="list-style-type: none"> 2. Describe the patient identification procedure according to patient situation. 3. Describe the purpose of the time-out procedure. 4. Identify the sequence for the time-out procedure. 5. Recall who will participate in the time-out procedure. 6. Identify the time-out components. <p>Skill Applications:</p> <ol style="list-style-type: none"> 1. Participate in the identification process of a surgical patient. 	
<p>Content</p>	<p>Content</p>	
<p>I. Patient identification</p> <p>A. Purposes</p> <ol style="list-style-type: none"> 1. Correct patient 2. Correct surgeon 3. Correct procedure 4. Correct location <ol style="list-style-type: none"> a. Side b. Site 	<p>I. Patient identification</p> <p>A. Purpose</p>	

NOTE: 7th edition “Physical Preparation of the Patient” is a combination of 6th edition “Positioning”, “Preoperative physical preparation of the patient”, “Skin Preparation”, “Transportation”, “Transfer”, and “Urinary Catheterization”.

Objectives: The learner will:

Didactic:

1. Describe the physical preparation that the surgical patient may receive prior to the surgical procedure.
2. Identify the methods of patient transport.
3. Discuss the principles of transporting a patient.
4. Discuss the principles of transferring a patient.
5. Identify equipment utilized for transferring of the surgical patient.
6. List the indications for urinary catheterization.
7. List the items to be taken under consideration when performing urinary catheterization.
8. List the supplies required to perform urinary catheterization.
9. Explain the steps for performing urinary catheterization.
10. Discuss the principles of monitoring urine output.
11. Explain the factors to be taken under consideration when the patient position is selected.
12. Identify the sections of the OR table.
13. Explain the functions of the OR table.
14. Describe the surgical positions.
15. Describe the various types of accessory devices.
16. Evaluate the uses of accessory devices.
17. Explain the factors to be taken under consideration to perform the patient skin prep.
18. Describe the various types of skin prep supplies.
19. Compare different skin prep solutions.
20. Explain the steps for completing a patient skin prep.

Skill Applications:

1. Demonstrate the principles of safe patient transport and transfer.
2. Demonstrate basic positioning of the surgical patient.
3. Demonstrate urinary catheterization.
4. Demonstrate skin preparation.

Contents:

I. Preoperative preparation

E. Monitoring devices

1. Vital signs

I. Removal of jewelry and nail polish

II. Transport

A. Principles

1. Ergonomics

a) Patient

1) Head and feet first

b) Personnel position

2. Communication

a) Patient identification

B. Considerations

1. Accessory devices

C. Methods of transport

III. Transfer

A. Principles

3. Patient safety

e) Wheelchair locked

IV. Urinary catheterization

B. Considerations

7. Patient safety

a) Allergy

D. Procedural steps

3. Positioning

V. Positioning

D. Application of accessory devices

1. Anti-embolic stockings

2. Dispersive electrode pad (grounding)

3. Pneumatic tourniquet

4. Sequential compression device (SCD)

5. Thermoregulatory device

- VI. Skin prep
 - B. Considerations
 - 3. Eyes
 - 5. Skin grafts
 - C. Types
 - 4. Additional supplies
 - b) Towel(s)

6 th ed. Abdominal Incisions and Exposure	7 th ed. Surgical Incisions and Wound Exposure	Notes
<p>Objectives Abdominal Incisions:</p> <ol style="list-style-type: none"> 1. Identify the various tissue layers of the abdominal wall. 2. Describe the creation and usage of various surgical incisions. 3. Discuss the advantages and disadvantages of incision types. 	<p>Objectives <u>Didactic</u></p> <ol style="list-style-type: none"> 1. Identify the anatomy as related to each type of incision. 2. Distinguish among the various types of incisions. 3. Identify surgical incision selection based upon proper planning. <p><u>Skill Applications:</u></p> <ol style="list-style-type: none"> 1. Demonstrate techniques for tissue exposure. 	<p>7th edition “Surgical Incisions and Wound Exposure” is a combination of 6th edition “Abdominal Incisions” and “Exposure”.</p>
<p>Content: Abdominal Incisions</p>	<p>Content</p>	
<p>II. Abdominal incisions C. Transverse 3. Rocky-Davis</p>	<p>I. Surgical incisions A. Abdominal 2. Common incisions 3) Lumbar b) Gibson B. Specialty 1. Relative anatomy a) Critical structures b) Tissue layers</p>	

Objectives: Exposure Exposure: 2. Identify criteria used to select exposure devices. 3. Apply techniques for tissue exposure.	C. Incision planning 1. Blade choice 2. Langer's lines 3. Skin marking 4. Placement 5. Size	
Content: Exposure	II. Principles of exposure	
III. Types and uses of retractors A. Hand-held B. Self-retaining F. Wound protector bag G. Bowel bag H. Viscera retainer	B. Application C. Device types 1. Disposable 2. Instrumentation 4. Penrose drain 6. Umbilical tape D. Device selection 3. Surgeon preference	

NOTE: 7th edition “Maintenance of the Sterile Field” is a **new document** that is a summary of documents including counts, instruments, sharps safety, handling medications, and handling specimens. The document is meant to provide a view of how those sections flow for the surgical technologist in the first scrub role. It is comparable to “Intraoperative case management” of the 6th edition.

Objectives: The learner will:

Didactic:

1. Discuss the concepts that apply to the maintenance of the sterile field.
2. Explain the duties of the surgical technologist to maintain the sterile field.
3. Describe the special considerations that require the surgical technologist to make adjustments to maintaining the sterile field.

Skill Applications:

1. Demonstrate sharps safety.
2. Demonstrate fire safety precautions during the intraoperative surgical phase.
3. Demonstrate correctly passing instruments.

4. Demonstrate methods for monitoring the sterile field.
5. Demonstrate performing counts.
6. Demonstrate transfer of care.
7. Demonstrate managing medications.
8. Demonstrate techniques for handling various types of specimens.
9. Demonstrate handling various types of sponges on the sterile field.
10. Demonstrate application of various types of dressings.

Content:

I. Concepts

A. Critical thinking

B. Maintaining pace

1. Anticipation

a) Instruments

b) Supplies

c) Additional items

2. Team expectations

C. Monitoring

1. Principles of asepsis

a) Breaks in asepsis

1) Recognizing

2) Correcting

b) Spatial perception

D. Teamwork

1. Communication

2. Reporting

a) Counts

b) Estimated blood loss

c) Fluids

d) Implants (as applicable)

e) Medications

II. Managing the Sterile Field

A. Closing counts

B. Dressings

C. Fire safety

1. Endoscopes

2. Cautery devices

3. Lasers

4. Light cords

D. Implants

1. Handling

2. Tracking

E. Instrument handling

1. Field visibility

a. Retractors

(1) Selection

(2) Placement

b. Suction

(1) Selection

(2) Techniques

(3) Tubing placement

2. Passing

a. Hand signals

b. Instrument function

c. Paired instruments

d. Position in relation to the surgeon

e. Ring-handled

f. Sharps

(1) Scalpel

(2) Suture needle

(3) Hypodermic needle

3. Point of use

a. Care

4. Powered equipment

- 5. Sharps
 - a. Exposure prevention
 - (1) Counting
 - (2) Hands-free technique
 - (a) Exceptions
 - (3) Storage
 - b. Scalpel
 - (1) Loading and unloading blades
 - (2) Location and tracking on field
 - (3) Safety principles
 - c. Staplers
 - (1) Loading and reloading
 - (2) Tracking usage
 - d. Suture needles
 - (1) Loading and unloading
 - (2) Location and tracking on field
 - (3) Safety principles
 - e. Hypodermic needle
- F. Medications and fluid handling
 - 1. Drawing
 - 2. Delivering
 - 3. Tracking usage
- G. Specimens
- H. Sponges
 - 1. Location and tracking
 - 2. Monitoring blood loss
 - 3. Replacement
 - 4. Size and type
 - 5. Sponging techniques
- I. Wound closure

- III. Special considerations
 - A. Procedural techniques
 - 1. Bowel
 - 2. Cancer
 - 3. Isolation
 - B. Transfer of care
 - 1. Communication
 - 2. Counting
 - 3. Timing

6 th ed. Wound Closure	7 th ed. Wound Management	Notes
		7 th edition “Wound Management” is a combination of 6 th edition “Wound Closure” and “Wound Healing”.
Objectives	Objectives	All the objectives are either revised or new .
Skill Applications		All statements are new .
Content: Wound Closure	Content	
I. Sutures A. Definitions 13. Instrument tie C. Selection of suture material 2. Surgeon selection of suture material a. Biological characteristics of the suture material b. Healing characteristics of tissue c. Incision d. Infection (3) Contaminated wound f. Physical characteristics of suture material	I. Suture A. Terminology 2. Approximation 3. Bioactivity 4. Braided 6. Coefficient of friction 7. Coated/uncoated 9. Encapsulation 10. Endoscopic suture 11. Enzymatic action 12. Gauge 13. Hydrolysis	

D. Suture materials

1. Natural absorbable sutures

a. Materials

- (1) Surgical gut
 - (a) Plain surgical gut
 - (b) Chromic surgical gut
- (2) Collagen sutures

b. Preservatives

- (1) Alcohol

2. Synthetic absorbable polymers

a. Materials

- (1) Polydioxanone (PDS™)
 - (a) PDS Plus Antibacterial
- (2) Poliglecaprone 25 (Monocryl™ or Caprosyn™)
- (3) Polyglyconate (Maxon™)
- (4) Polyglactin 910 (Vicryl™)
 - (a) Vicryl™ Plus Antibacterial
- (5) Polyglycolic acid (Dexon™)
- (6) Glycoside collected (Polysorb™)
- (7) Glycomer 631 (Biosyn™)

3. Natural nonabsorbable sutures

a. Materials

- (1) Silk
 - (a) Virgin
 - (b) Dermal silk
 - (c) Handling characteristics
 - (d) Applications
- (2) Stainless steel
 - (a) Handling characteristics
 - (b) Applications

22. Pigment

- a) Dyed
- b) Undyed

24. Size

25. Spinning

26. Suture(s)

30. Twisted

B. Packaging

2. Characteristics

- a. Ease of transfer to the sterile field
- b. Protection
- c. Sterility assurance

3. Label information

- a. Barbed
- b. Knotless
- c. Looped
- d. Material
- e. Needle type and size
- f. Reel
- g. Strand length
- i. Suture style
 - 1) Pre-cut strands
 - (a) Lengths
 - (b) Free tie
 - (c) Uses
 - 2) Single strand
 - (a) Single armed
 - (b) Double armed
 - 3) Multi-strand
 - (a) Single armed
 - (b) Double armed
 - (c) Control release

4. Synthetic nonabsorbable polymers

a. Materials

- (1) Surgical nylon
 - (a) Monofilament
 - i) Ethilon
 - ii) Dermalon
 - iii) Monosof
 - iv) Supramid™
 - v) Handling characteristics
 - vi) Applications
 - (b) Multifilament
 - i) Bralon
 - ii) Nurolon
 - iii) Supramid™
 - iv) Surgilon
 - v) Handling characteristics
 - vi) Applications
- (2) Polyester fiber
 - (a) Non-coated
 - i) Dacron
 - ii) Mersilene
 - iii) Handling characteristics
 - iv) Applications
 - (b) Coated
 - i) Ethibond
 - ii) Tevdek
 - iii) Polydek
 - iv) Coatings
 - a) Polybutylate
 - b) Polytetrafluoroethylene

C. Characteristics of suture material

1. Easy to handle

D. Selection of suture material

1. Suture type
2. Tissue type
3. Surgical specialty area
4. Incision type
5. Wound status
 - b) Traumatic injury

E. Suture classifications

2. Strand composition
 - c) Braided vs twisted
 - d) Coated vs uncoated
 - e) Dyed vs undyed
3. Degradation properties
 - a) Absorbable
 - 3) Uses
 - 4) Contraindications
 - b) Non-absorbable
 - 1) Encapsulation
 - 2) Uses

F. Suture materials

1. Natural absorbable suture
 - b) Absorption
 - 1) Rate vs. tissue healing timeframe
 - 2) Process
 - d) Contraindications
2. Synthetic absorbable suture
 - b) Absorption
 - 1) Rate
 - 2) Process

- c) Silicone
 - v) Handling characteristics
 - vi) Applications
 - (c) Coated or non-coated
 - i) Ticron
 - ii) Handling characteristics
 - iii) Applications
 - (3) Polybutester (Novofil™)
 - (a) Handling characteristics
 - (b) Applications
 - (4) Polypropylene (Prolene™, Surgipro™, Surgilene™)
 - (a) Handling characteristics
 - (b) Applications
 - (5) Polytetrafluoroethylene (PTFE)
 - (a) Handling characteristics
 - (b) Applications
 - (6) Gore-Tex™
 - (a) Handling characteristics
 - (b) Applications
 - (7) Fiberwire
 - (a) Handling characteristics
 - (b) Applications

E. Suture preparation

- 1. Straightening
- 3. Estimating suture needs
- 4. Sequence of usage

F. Packaging of suture materials

- 4. Inner dispenser
- 6. Labeling

- 3. Natural non-absorbable suture
 - d) Advantages
 - e) Disadvantages
- 4. Synthetic non-absorbable suture
 - d) Advantages
 - e) Disadvantages
- G. Suture needles
 - 2. Selection
 - a) Tissue type
 - b) Surgeon preference
 - 3. Parts of a needle
 - a) Eye
 - 1) Closed
 - 3) Swaged
 - b) Body
 - 1) Straight
 - 2) Curved
 - a) Types
 - 4. Handling
 - a) Accountability
 - 1) Exchange basis
 - 2) Inspection on return
 - 3) Counts
 - b) Preparation
 - 1) Memory reduction
 - 3) Anticipating suture needs
 - 4) Loading
 - c) Safety precautions
 - 1) Intraoperative
 - 2) Postoperative
 - d) Disposal

G. Suture size, material, color, and length

4. Needle

- a. Shape
- b. Quantity
- c. Point geometry

H. Methods of suturing/suturing techniques

2. Suturing techniques

- a. Continuous
 - (2) Continuous running/locking (blanket stitch)
 - (3) Subcuticular stitch

b. Interrupted

- (1) Simple interrupted
- (2) Interrupted horizontal mattress
- (3) Interrupted vertical mattress
- (4) Figure-of-eight
- (5) Buried
- (6) Retention
- (7) Traction stitch

3. Retention suture

- a. Definition
- b. Applications
- c. Materials
 - (1) Suture materials
 - (4) Bumpers

4. Endoscopic suturing

- a. Applications
- b. Methods
 - (2) Intracorporeal method
 - (a) Endo-loop
 - (b) Free hand
 - (c) Endostitch

II. Closure techniques

B. Techniques

- 7. Ties
 - a) Free tie
 - b) Tie on passer
- 8. Drain stitch

D. Needle holder selection

- 1. Needle holder
 - a) Jaws vs. needle body
 - b) Length vs. wound depth
- 2. Loading
 - d) Curved
 - e) Micro

E. Techniques for cutting suture material

F. Skin closure

- 1. Skin staples
 - a) Advantages
 - b) CST's role
 - c) Precautions

G. Wound closure accessories

- 4. Endoscopic closure devices
- 5. Pledgets
- 6. Wound vac

<ul style="list-style-type: none"> 5. Accessory devices <ul style="list-style-type: none"> b. Lead shots c. Umbilical tape d. Vessel loops I. Abdominal wall sequence layer closure <ul style="list-style-type: none"> 1. Peritoneum 2. Muscle 3. Fascia 4. Subcutaneous 5. Subcuticular 6. Skin 	<p>III. Wound Healing</p> <ul style="list-style-type: none"> A. Terminology <ul style="list-style-type: none"> 1. Abrasion 3. Avulsion 6. Contusion 21. Laceration 22. Perforation 23. Proud flesh 24. Nosocomial infection 25. Scar 29. Tissue tensile strength B. Types of wounds <ul style="list-style-type: none"> 2. Unintentional/traumatic <ul style="list-style-type: none"> a) Blunt c) Penetrating d) Thermal E. Factors affecting wound healing <ul style="list-style-type: none"> 1. Physical condition of the patient <ul style="list-style-type: none"> c) Nutritional status <ul style="list-style-type: none"> 1) Malnourished 2. External factors <ul style="list-style-type: none"> b) Medications <ul style="list-style-type: none"> 1) Prescription 2) Illicit 3. Surgical technique <ul style="list-style-type: none"> a) Principles of asepsis F. Complications <ul style="list-style-type: none"> 2. Hemorrhage 3. Necrosis 4. Tissue disruption <ul style="list-style-type: none"> d) Re-injury e) Rejection (graft/implant) 	<p>Scroll down to page 91 “Wound Healing”, 6th ed. to make comparison between the two sections.</p>
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II. Surgical Needles

A. Needle characteristics

1. Strong
2. Rigid
3. Sharp
4. No burrs
5. No corrosion

C. Needle points

1. Shape
 - b. Taper
 - (1) Regular
 - (4) Trocar

2. Applications

D. Needle bodies

1. $\frac{1}{4}$ circle
2. $\frac{3}{8}$ circle
3. $\frac{1}{2}$ circle
4. $\frac{5}{8}$ circle
5. Keith

E. Eyed needles

2. Split

F. Swaged

1. Single-armed
2. Double-armed
3. Permanently swaged
4. Control release

G. Needle holder selection and loading needles

2. Correct position of needle in holder
 - d. Heaney needle holder
 - e. Castroviejo needle holder

<p>H. Needle accountability</p> <ol style="list-style-type: none"> 1. Exchange needles one-for-one basis 2. Inspect needles when returned by surgeon 3. Sharps count during case 4. Sharps containers end of case 5. Responsibility for counts <p>I. Surgical specialty needles</p> <ol style="list-style-type: none"> 1. Biopsy needles 2. Cannulated needles 3. Diagnostic needles 4. Injection needles 5. Irrigation needles 		<p>“Biopsy needles” and “irrigation needles” moved to “Surgical Supplies”, 7th ed.</p>
<p>III. Surgical staplers</p>		<p>Moved to “Surgical Supplies”, 7th ed.</p>
<p>IV. Ligating clips</p>		<p>Moved to “Surgical Supplies”, 7th ed.</p>
<p>V. Tissue adhesives</p>		<p>Moved to “Application of Dressings”, 7th ed. But the two lists in the 6th ed. deleted.</p>
<p>VI. Tissue repair materials</p>		<p>Moved to “Surgical Supplies”, 7th ed. However, the list in 6th ed. is deleted and in 7th ed. shortened to just “Mesh”.</p>

NOTE: “Wound Healing”, 7th ed. is on page 88 so a comparison can be made between the two documents.

I. Wound healing

A. Definitions

- 19. Necrosis
- 22. Trauma
- 23. Tissue reaction

B. Types of wounds

- 1. Intentional
 - b. Occlusion banding
- 2. Unintentional wounds
 - a. Traumatic injuries
 - b. Closed wounds
 - c. Open wounds
 - (1) Simple wounds
 - (2) Clean wounds
 - (3) Complicated wounds
 - (4) Delayed full-thickness injury
 - (5) Contaminated wounds

D. Considerations

- 1. Dead space
- 2. Tensile strength
- 3. Disease processes

E. Inflammatory process

- 1. Pain
- 2. Heat
- 3. Swelling
- 4. Redness
- 5. Loss of function

F. Phases of wound healing

- 1. Fibrinogen
- 2. Fibroblasts
- 3. Collagen

4. Network of fibers

5. Scar tissue

G. Factors influencing healing

1. Physical condition

b. Allergic response

d. Immunosuppressed patients

2. External factors that influence healing processes

c. Hematology

3. Surgical technique and prevention of wound infections

a. Surgical site infections

(1) Incisional infection

(2) Deep wound infection

b. Prevention of wound infection

(1) Reduce sources of contamination

(2) Standard precautions

(3) Control endogenous infection

(5) Antibiotic therapy

(9) Dressings

c. Intraoperative tissue handling

(3) Elimination of dead space

(4) Length and direction of the incision

(6) Sterile technique

(9) Wound security

H. Complications

1. Adhesions

4. Hemorrhage

5. Infection

9. Wound disruptions

a. Dead space

e. Tissue trauma

f. Wound tension

6 th ed. Specimen Care	7 th ed. Specimen Care	Notes
<p>Objectives</p> <ul style="list-style-type: none"> 2. Discuss the types of specimen containers. 3. Describe the procedure for validating specimen with surgeon and circulator. 4. Describe the procedure for specimen labeling and transfer to appropriate department. 5. Discuss areas for specimen storage. 6. Demonstrate the handling and preservation for specific types of specimens. 	<p>Objectives</p> <ul style="list-style-type: none"> 1. Describe specimen types. 3. Identify specimen collection containers. 4. Describe the procedures for handling transfer of specimens. 5. List required labeling components. 6. Discuss the procedure for managing a specimen incident. 	
	<p>Skill Applications</p> <ul style="list-style-type: none"> 1. Demonstrate specimen handling and the validation process. 	
<p>Content</p>	<p>Content</p>	
<p>I. Methods of obtaining specimens</p> <ul style="list-style-type: none"> B. Incisional biopsy 	<p>I. Types of specimens</p> <ul style="list-style-type: none"> B. Fresh 2. Forensic evidence E. Specialty 1. Fetal demise 	
<p>II. Specimen handling</p> <ul style="list-style-type: none"> A. On field <ul style="list-style-type: none"> 1. Careful handling 2. Keep moist 3. Multiple specimens <ul style="list-style-type: none"> a. Right and left b. Staging 5. Tiny specimens 	<p>II. Methods of obtaining</p> <ul style="list-style-type: none"> C. Swab 	

<ul style="list-style-type: none"> 6. Validating specimen with surgeon <ul style="list-style-type: none"> a. Receiving specimen from surgeon b. Transferring to circulator B. Off field <ul style="list-style-type: none"> 1. Proper container 2. Proper label C. Special considerations <ul style="list-style-type: none"> 1. Cord blood 2. Muscle biopsy 		
<ul style="list-style-type: none"> III. Containers <ul style="list-style-type: none"> A. Sterile B. Non-sterile C. Specific 	<ul style="list-style-type: none"> III. Collection containers <ul style="list-style-type: none"> A. Sterile <ul style="list-style-type: none"> 1. Culture tubes 2. Leuken/specimen trap 3. Specimen cup B. Non-sterile <ul style="list-style-type: none"> 1. Clean containers and pans 2. Specimen cup 3. Vacutainers 	
<ul style="list-style-type: none"> IV. Specimen labeling <ul style="list-style-type: none"> A. Appropriate requisition D. Diagnosis E. Logging H. Precise test required I. Proper specimen identification J. Surgeon 	<ul style="list-style-type: none"> V. Labeling <ul style="list-style-type: none"> B. Content <ul style="list-style-type: none"> 4. Specimen identification and source 5. Specific location and orientation 6. Specimen type and handling instructions 7. Surgeon name and contact information 8. Circulator name C. Standardized labels 	<p>NOTE: “Labeling”, 7th ed. column is out of sequence regarding Roman numeral to facilitate comparing the information to 6th ed. column.</p>

<p>V. Specific types of specimens and their care</p> <ul style="list-style-type: none"> C. Chain of custody F. Embryo/fetus H. Fresh specimens J. Legal evidence <ul style="list-style-type: none"> 1. Bullet 2. Clothing 3. DNA 4. Prosthesis 	<p>IV. Care and handling</p> <ul style="list-style-type: none"> A. Field placement/preparation D. Validation <ul style="list-style-type: none"> 1. Circulator 2. Lab or pathology 3. Surgeon 4. Surgical technologist E. Transfer <ul style="list-style-type: none"> 3. Off field to circulator 4. Specimen storage area(s) 	
<p>VI. Specimen transfer and storage</p> <ul style="list-style-type: none"> B. Refrigerator C. Room temperature in department D. Transfer to diagnostic imaging 		
<p>VII. Incidents</p> <ul style="list-style-type: none"> A. Incorrect labeling B. Loss of specimen 	<p>VI. Incident management</p> <ul style="list-style-type: none"> A. Error types B. Documentation C. Prevention D. Reporting 	

6 th ed. Surgical Dressings	7 th ed. Application of Dressings	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Evaluate the purposes of surgical dressings. 2. Analyze their importance to postoperative wound care. 3. Compare and contrast the most commonly used types of surgical and specialty dressings. 4. Describe the importance of proper surgical dressing application techniques. 5. Apply proper principles of sterile technique and demonstrate the application of commonly used types of surgical and specialty dressings. 	<p>Objectives</p> <ol style="list-style-type: none"> 1. Describe the types of surgical dressings. 2. Evaluate the functions of surgical dressings. 	
	<p>Skill Applications</p> <ol style="list-style-type: none"> 1. Demonstrate the preparation of surgical dressings. 2. Demonstrate the application of surgical dressings. 	
<p>Content</p>	<p>Content</p>	
<p>I. Surgical dressings</p> <p>B. Preparation for dressing application</p> <p>C. Dressing types</p> <ol style="list-style-type: none"> 2. One-layer dressings <ol style="list-style-type: none"> a. Aerosol adhesive spray b. Bioclusive c. Dermabond d. Foams e. Gels g. Steri-strips h. Op-site 	<p>I. Surgical dressings</p> <p>A. Types</p> <ol style="list-style-type: none"> 2. One-layer <ol style="list-style-type: none"> a) Adhesives <ol style="list-style-type: none"> 1) Skin preparation agents b) Films 3. Packing <ol style="list-style-type: none"> a) Impregnated b) Non-impregnated 5. Specialty <ol style="list-style-type: none"> a) Abdominal binders 	

i. Skin preparation agents

- (1) Benzoin
- (2) Mastisol

3. Three-layer dressing

a. Three types of inner layers

(1) Occlusive (nonpermeable)

- (a) Xeroform
- (b) Vaseline gauze
- (c) Povidone-iodine gauze

(2) Semi-occlusive (semipermeable)

- (a) Hydrocolloid
- (b) Hydrogel

(3) Nonocclusive (permeable)

- (a) Adaptic
- (b) Telfa

b. Intermediate layer

(2) Gauze

- (a) Kerlix™
- (b) Sponges (2x2 in; Toppers™)

c. Outer layer (securing)

(1) Tape

- (a) Cloth
- (b) Elastoplast
- (c) Foam
- (d) Paper
- (e) Plastic
- (f) Silk

(2) Wrap

- (a) Ace bandage
- (b) Coban
- (c) Rolled gauze (Kling™)

i) Post-op bra

j) Scrotal support

k) Skin adhesives

l) Skin graft

1) Donor site

2) Recipient site

6. Three-layer

c) Outer (securing, tertiary)

2) Transparent

<p>4. Rigid dressings</p> <p>a. Casts</p> <p>(1) Types</p> <p>(2) Padding and skin protection material</p> <p>(a) Stockinette</p> <p>(b) Webril™</p>	<p>II. Perioperative handling</p> <p>A. Preparation</p> <p>B. Application</p>	
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6 th ed. Postoperative Case Management	7 th ed. Breakdown of the Sterile Field	Notes
		<p>“Postoperative Case Management”, 6th ed. is from page 160; it is number IV of the “Perioperative Case Management” section.</p>
	<p>Objectives</p> <ol style="list-style-type: none"> 1. Discuss the concepts for the breakdown of the sterile field. 2. Explain the steps that are taken to breakdown the sterile field. 	
	<p>Skill Applications</p> <ol style="list-style-type: none"> 1. Demonstrate the breakdown of the sterile field. 	
<p>Content</p>	<p>Content</p>	
<p>IV. Postoperative case management</p> <p>A. Drains</p> <p>B. Apply dressings</p> <p>C. Breakdown sterile field</p> <ol style="list-style-type: none"> 1. Remove non-disposable from surgical field, e.g. instruments, power cord 	<p>I. Concepts</p> <p>A. Environmental disinfection of the OR (see <i>Decontamination of the Surgical Environment</i>)</p> <ol style="list-style-type: none"> 1. Room turnover efficacy <p>B. Principles</p> <ol style="list-style-type: none"> 1. Economy of motion 2. Point-of-use (POU) decontamination 	<ul style="list-style-type: none"> • “Drains”, 6th ed. – Refer to “Surgical Supplies”, 7th ed. • “Apply dressings”, 6th ed. – Refer to “Surgical Dressings”, 7th ed.

<ul style="list-style-type: none"> 2. Remove and discard disposable supplies, e.g. light handles, drapes, suction tubing, ESU cord, sponges <ul style="list-style-type: none"> a. Biohazardous bag b. Regular bag 3. Discard linen <ul style="list-style-type: none"> a. Biohazardous bag b. Regular bag 4. Discard sharps 5. Prepare instruments for decontamination D. Remove gown and gloves E. Wash hands F. Complete documentation G. Patient transfer – OR table to stretcher H. Transport case cart to decontamination room 	<ul style="list-style-type: none"> C. Standard precautions <ul style="list-style-type: none"> 1. PPE <ul style="list-style-type: none"> a) Doffing b) Disposal c) Replacement 2. Medical handwash D. Timing <ul style="list-style-type: none"> 1. Maintaining sterility 	
	<p>II. Breaking down the sterile field</p> <ul style="list-style-type: none"> A. Handling <ul style="list-style-type: none"> 1. Disposables <ul style="list-style-type: none"> a) Biohazard b) Trash 2. Non-disposables <ul style="list-style-type: none"> a) Instrumentation <ul style="list-style-type: none"> 1) Disassembly 2) Pre-cleaning 3) Tagged for repair b) Reprocessed devices 3. Linens <ul style="list-style-type: none"> a) Removal 4. Sharps <ul style="list-style-type: none"> a) Removal b) Disposal 	

	<ul style="list-style-type: none"> 5. Specimen (see <i>Specimen Care</i>) 6. Suction system <p>B. Transport</p> <ul style="list-style-type: none"> 1. Case cart containment 	
	<p>III. Special considerations</p> <p>A. High-risk contamination</p> <ul style="list-style-type: none"> 1. Suspected prion disease (CJD) 	

6 th ed. Post Anesthesia Care Unit (PACU)	7 th ed. Post Anesthesia Care Unit (PACU)	Notes
<p>Objectives</p> <ul style="list-style-type: none"> 3. List necessary equipment in the PACU. 	<p>Objectives</p> <ul style="list-style-type: none"> 3. Describe the assistive role of the surgical technologist. 4. Describe equipment and supplies. 5. Discuss the criteria for patient discharge. 	
<p>Content</p> <p>I. Postoperative patient care</p> <ul style="list-style-type: none"> B. Check IV, dressing, catheters, drains E. Postoperative complications F. Postoperative discomforts 	<p>Content</p> <p>I. Patient care management</p> <p>B. Considerations</p> <ul style="list-style-type: none"> 1. Comfort level <ul style="list-style-type: none"> a) Pain b) Position 3. Fluid collection devices 5. Nausea and vomiting 6. Patient privacy <p>C. Complications</p> <ul style="list-style-type: none"> 1. Airway occlusion 2. Cardiac arrest 3. Hemorrhage 4. Malignant hyperthermia 5. Neurological deficits 6. Patient injury 7. Wound disruption 	

	<p>D. Assistive role of the surgical technologist</p> <ol style="list-style-type: none"> 1. Emergency response 2. Observe and communicate 	
	<p>II. Equipment and supplies</p> <p>B. Patient accessories</p> <ol style="list-style-type: none"> 3. Side rail pads <p>C. Specialty considerations</p> <ol style="list-style-type: none"> 3. Sterile supplies <ol style="list-style-type: none"> a) Drapes b) Gloves c) Gowns d) Minor tray 5. Suture 	
<p>III. Standards, policies, and criteria for patient discharge</p> <p>A. Institutional discharge policy</p> <ol style="list-style-type: none"> 1. Institutional guidelines 2. Patient evaluation 4. Discharge options 5. Transportation 	<p>III. Patient discharge</p> <p>A. Facility policy</p> <ol style="list-style-type: none"> 1. Against medical advice (AMA) 2. Patient evaluation <ol style="list-style-type: none"> a) Aldrete score 3. Post-operative instructions 	

6 th ed. Environmental Disinfection of the OR	7 th ed. Disinfection of the Surgical Environment	Notes
<p>Objectives</p> <ol style="list-style-type: none"> 1. Perform decontamination of the OR environment. 2. Analyze the factors and variable of disinfecting agents. 3. Compare and contrast disinfecting agents. 	<p>Objectives</p> <ol style="list-style-type: none"> 1. Describe the purpose of disinfection of the surgical environment. 2. Describe the cleaning process utilizing disinfecting agents. 3. Describe disinfecting agents. 	
	<p>Skill Applications</p> <ol style="list-style-type: none"> 1. Demonstrate disinfection of the surgical environment. 	

Content	Content	
<p>I. Purposes of environmental disinfection</p> <p>C. Prevent nosocomial infection</p>	<p>I. Purpose</p> <p>A. Patient</p> <p>C. Infection control</p> <p>1. Prevention</p> <p>b) Healthcare acquired infection (HAI)</p>	
<p>II. Procedure</p> <p>A. Intraoperative decontamination</p> <p>B. Decontamination between procedures</p>	<p>II. Cleaning</p> <p>A. Prior to first case of the day</p> <p>1. Damp dust</p> <p>2. Removal of unnecessary equipment</p> <p>B. Concurrent</p> <p>1. Gross spillage</p> <p>C. Room turnover</p> <p>1. Routine</p> <p>2. Isolation cases</p> <p>D. Terminal</p> <p>1. Routine</p> <p>2. Isolation cases</p>	
<p>III. Disinfection</p> <p>A. Factors for choosing an agent</p> <p>2. Mechanism of destruction</p> <p>a. Coagulate cell protein</p> <p>b. Denature cell protein</p> <p>c. Oxidase enzymes</p> <p>d. Bind enzymes</p> <p>e. Alter cell membrane</p> <p>3. Nature of microbial contamination</p> <p>a. Normal flora</p> <p>b. Organic soil</p> <p>6. Porosity of surface</p> <p>8. Surface tension</p>	<p>III. Disinfecting agents</p> <p>A. Types</p> <p>6. Quaternary ammonium</p> <p>B. Selection</p> <p>2. Factor considerations</p> <p>d) Safety and handling</p> <p>e) Safety data sheets (SDS)</p>	

6 th ed. Assistant Circulator Duties	7 th ed. Assistant Circulator Role	Notes
Objectives 2. Discuss the OR documentation to be completed by the assistant circulator.		
Content	Content	
I. Preoperative assistant circulator duties E. Connect equipment F. Assist transferring patient from stretcher to OR table	I. Preoperative A. Room preparation 1. Furniture a) Selection b) Positioning 2. Equipment a) Selection b) Positioning c) Testing 3. Supplies a) Selection C. Patient preparation 1. Assessment a) Baseline vitals 2. Urinary catheterization 3. Anesthesia support 5. Application of accessory devices 6. Skin prep 7. Draping	
II. Intraoperative assistant circulator duties	II. Intraoperative	
III. Postoperative assistant circulator duties D. Assist with breakdown of OR	III. Postoperative C. Anesthesia support E. Patient transport F. Specimen care H. Environmental disinfection	

SURGICAL PROCEDURES - DIDACTIC

6 th ed. General	7 th ed. General	Notes
		<p>“Approach” is a new item added to all surgical procedure documents; therefore, it is NOT included each time.</p>
	<p>I. Gastrointestinal B. Procedure 3. Colonoscopy 5. Esophagoscopy 6. Esophagogastroduodenoscopy (EGD) a) With/without endoscopic retrograde cholangiopancreatography (ERCP) 11. Unhealthy BMI a) Gastric sleeve b) Lap band c) Roux-en-Y (gastric bypass)</p>	
	<p>II. Breast B. Procedures 2. Modified radical mastectomy b) With/without reconstruction</p>	
	<p>III. Endocrine B. Procedures 2. Thyroidectomy a) With/without parathyroid preservation</p>	

	IV. Hernia B. Procedures 1. Femoral 2. Hiatal	
	V. Rectal B. Procedures 1. Fistulectomy/Fistulotomy 3. Pilonidal cystectomy 4. Sphincteroplasty	

6 th ed. Obstetric and Gynecologic	7 th ed. Obstetric and Gynecologic	Notes
	I. Cervix B. Procedures 2. Cervical cerclage a) McDonald 4. Dilation, curettage, and evacuation 5. Loop electrosurgical excision procedure (LEEP)	
	II. Uterus, Uterine/Fallopian Tubes, Ovaries B. Procedures 1. Uterus a) Brachytherapy 3. Ovary a) Cystectomy	
	IV. Vagina B. Procedures 1. Colpocleisis 2. Fistula repair a) Rectovaginal b) Vesicovaginal	

6 th ed. Genitourinary	7 th ed. Genitourinary	Notes
	<p>I. Kidney, Adrenal Gland</p> <p>B. Procedures</p> <p>1. Kidney</p> <ul style="list-style-type: none"> a) Extracorporeal shock wave lithotripsy (ESWL) d) Pyelolithotomy <p>2. Adrenal gland</p> <ul style="list-style-type: none"> a) Adrenalectomy 	
	<p>II. Ureter, Bladder, Urethra</p> <p>B. Procedures</p> <p>1. Bladder</p> <ul style="list-style-type: none"> a) Suprapubic cystostomy <p>2. Ureter</p> <ul style="list-style-type: none"> a) Balloon dilation b) Retrograde pyelogram c) Stent placement <p>3. Urethra</p> <ul style="list-style-type: none"> a) Artificial urinary sphincter b) Dilation c) Meatoplasty d) Meatotomy 	
	<p>IV. Penile, Testicular</p> <p>B. Procedures</p> <p>2. Testicular</p> <ul style="list-style-type: none"> d) Prosthetic implant e) Varicocelectomy f) Vasectomy g) Vasovasostomy 	

	V. Gender Confirmation B. Procedures 1. Female to male a) Phalloplasty b) Testicular implants c) Vaginectomy 2. Male to female a) Labiaplasty b) Penectomy c) Vaginoplasty	
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6 th ed. Otorhinolaryngologic	7 th ed. Otorhinolaryngologic	Notes
II. Nose C. Nasal antrostomy	I. Ear B. Procedures 1. Acoustic neurectomy 2. Bone anchored hearing aid (BaHA®) 6. Ossicular chain reconstruction	
	II. Nasal B. Procedures 2. Fracture reduction 5. Radical antrostomy a) Caldwell Luc (CWS) 8. Valve reconstruction	
	III. Oral Cavity/Throat/Neck B. Procedures 4. Laryngoscopy	<ul style="list-style-type: none"> • “Bronchoscopy” is repeated in “Cardiothoracic” procedures. • “Esophagoscopy” is repeated in “General” procedures. • “Thyroidectomy” and “Parathyroidectomy” are repeated in “General” procedures.

6 th ed. Orthopedic	7 th ed. Orthopedic	Notes
IV. Femur A. Femoral shaft fracture 1. Rodding	I. Shoulder/Clavicle B. Procedures 2. Arthroplasty b) Hemi c) Reverse 5. Open reduction internal fixation (ORIF) of clavicle 6. Rotator cuff repair	
V. Knee B. Anterior cruciate ligament repair (ACL)	II. Arm/Elbow/Forearm B. Procedures 1. Arthroplasty a. Radial head 2. IM nail a) Humeral shaft fracture 3. ORIF a) Proximal humeral fracture b) Olecranon fracture c) Radial/ulnar shaft fracture	
	III. Wrist/Hand B. Procedures 1. Arthroplasty 2. Arthroscopy 3. ORIF a. Distal radius fracture 4. Application of external fixation device	

	<p>IV. Pelvis/Hip</p> <p>B. Procedures</p> <ol style="list-style-type: none"> 1. Arthroplasty <ol style="list-style-type: none"> b) Hemi 2. Arthroscopy 3. Application of external fixation device 5. IM nail/pins <ol style="list-style-type: none"> a) Shaft/trochanteric fractures 	
	<p>V. Leg/Knee</p> <p>B. Procedures</p> <ol style="list-style-type: none"> 2. Arthroscopy <ol style="list-style-type: none"> a) Ligament repairs b) Meniscal repair 3. Arthroplasty <ol style="list-style-type: none"> b) Partial 4. IM nail <ol style="list-style-type: none"> a) Femoral/tibial shaft fractures 5. ORIF <ol style="list-style-type: none"> a. Tibial plateau fracture b. Patellar fracture 	
	<p>VI. Ankle/Foot</p> <p>B. Procedures</p> <ol style="list-style-type: none"> 2. Arthroscopy 3. Amputation 5. ORIF <ol style="list-style-type: none"> a) Calcaneal fracture b) Malleolus fracture 	

6 th ed. Oral and Maxillofacial	7 th ed. Oral and Maxillofacial	Notes
	I. Facial B. Procedures 1. Open reduction internal fixation (ORIF) a) Zygomatic C. Orthognathic	
	II. Oral B. Procedures 2. Bone grafting 4. Implants	
	III. Cranial B. Procedures 1. ORIF b) Frontal	

6 th ed. Plastic and Reconstructive	7 th ed. Plastic and Reconstructive	Notes
I. Head and face D. Malar implants E. Mentoplasty	I. Head/Face B. Procedures 4. Craniosynostosis correction 5. Facial implants 6. Orbital decompression	
II. Breast A. Augmentation B. Mastopexy	II. Breast B. Procedures 1. Mammoplasty/mammaplasty a) Augmentation/reconstruction 1) LAT 2) Tissue expansion c) Reduction	
IV. Superficial lesion/neoplasm		
VII. Hand procedures B. Traumatic injury repairs		

	III. Abdomen B. Procedures 2. Body lift a) Full b) Lower 3. Panniculectomy	
	IV. Skin 1. Superficial lesion/neoplasm a) Micrographic (MOHS)	
	V. Genitalia	Procedures listed under “Genitalia” repeated in “Genitourinary” procedures.
	VI. Hand B. Procedures 1. DeQuervain’s release 3. Polydactyly release a) Radial thumb and collateral ligament ablation 5. Replantation	

6 th ed. Ophthalmic	7 th ed. Ophthalmic	Notes
VI. Iridectomy	I. Conjunctiva/Cornea/Iris B. Procedures 1. Iridotomy 2. Keratoplasty a) Laser assisted in situ keratomileusis (LASIK) b) Photorefractive keratectomy (PRK) 4. Pterygium excision	

	III. Glove B. Procedures 2. Trabeculectomy/trabeculoplasty	
	IV. Lens B. Procedures 1. Cataract excision a) Phacoemulsification b) Femtosecond laser assisted cataract surgery (FLACS)	
	VI. Retina B. Procedures 1. Pneumatic retinopexy	
	VII. Tear duct B. Procedures 2. Duct dilation/stent	

6 th ed. Cardiothoracic	7 th ed. Cardiothoracic	Notes
I. Thoracic B. Mediastinoscopy 1. Lymph node biopsy D. Thoracotomy 6. Pulmonary embolectomy	I. Thoracic B. Procedures 6. Pectus excavatum/carinatum repair	
II. Cardiothoracic B. Atrial/ventricular septal defect repair C. Cardiac 2. Coronary artery bypass graft (CABG) b. Minimally invasive direct – CABG (MID-CABG)	II. Cardiac B. Procedures 1. Aneurysm a) Aortic arch 2. Arrhythmic a) Implantable cardioverter defibrillator (ICD) b) Pacemaker c) Radiofrequency ablation	

	4. Coronary a) Angioplasty	
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6 th ed. Peripheral Vascular	7 th ed. Peripheral Vascular	Notes
II. Angioplasty A. Endograft placement B. Endostent insertion	I. Blood vessel B. Procedures c) Thrombectomy	
IV. AV shunts and bypass C. Femoropopliteal bypass	II. Artery B. Procedures d) Angiography	
IX. Venous access device	III. Vein B. Procedures c) Venous access placement 1) Antibiotic 2) Chemotherapy 3) Hemodialysis	

6 th ed. Neurosurgery	7 th ed. Neurologic	Notes
II. Laminectomy C. Lumbar 2. Spinal fixation	II. Spine: Cervical, Thoracic, Lumbar, Sacral B. Procedures 1. Discectomy 2. Fusion a) Instrumented b) Interbody 3. Kyphoplasty 5. Spinal cord stimulator placement 6. Vertebroplasty	
IV. Rhizotomy	III. Cranium B. Procedures 4. Evacuation of hematoma	
IX. Ventriculoscopy		

	5. Shunt placement b) Ventriculoarterial 7. Tumor resection	
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