



CNOR Study Plan

To use this plan

Use this study plan to supplement your clinical experience and expertise. Review the task and knowledge statements beginning on page 22 of the [CNOR handbook](#). Highlight those statements that are less familiar and then match them to the reading assignments in this study plan. Give yourself credit for what are already identified as areas of strength and concentrate on subject areas in which you'd like to gain more information.

References cited in this plan

AORN. (2017). *Guidelines for perioperative practice*. Denver, CO: AORN.

Phillips, N. (Ed.). (2017). *Berry and Kohn's operating room technique* (13th ed.). St. Louis, MO: Elsevier. (Key=B&K)

Rothrock, J.C. (Ed.). (2015). *Alexander's care of the patient in surgery* (15th ed.). St. Louis, MO: Elsevier. (Key=Alexander's)

AORN Position Statements are found at <http://www.aorn.org/guidelines/clinical-resources/position-statements>

NOTE: **Bolded** items appear in multiple domains

Primary General Readings:

AORN Guidelines: Medication safety

Alexander's Care of the Patient in Surgery: Chapters 1, 2, 30

Berry and Kohn's Operating Room Technique: Chapters 2, 3, 11, 21

Topic	Key Words	Additional Readings
1. Assess the health status of the patient	Age specific , anatomy & physiology, assessment, cultural specific , diagnostic studies, documentation, laboratory results, nursing diagnosis, nursing process, NANDA, Perioperative Nursing Data Set (PNDS) , pathophysiology, physical assessment, preoperative fasting, vital signs	AORN Guidelines: <ul style="list-style-type: none"> • Patient information management • Moderate sedation/analgesia, p. 662-666 AORN Position Statement: Care of the Older Adult in Perioperative Settings Alexander's: Chapters 26, 27 B&K: Chapters 7, 8, 9, 25
2. Review of preoperative medications	Complementary/alternative medicine (CAM), allergies , herbs, illegal/illicit drugs, medication reconciliation, pharmacology , recreational drugs side effects	AORN Guidelines: Complementary care AORN Position Statement: Preventing Wrong-Patient, Wrong-Site, Wrong-Procedure Events B&K: Chapter 23, p. 412-413
3. Initiation of the Universal Protocol	Preoperative verification, site marking, surgical safety checklist, The Joint Commission , wrong site, wrong procedure, wrong person	Alexander's: Chapter 20, p. 688
4. Obtain surgical consent	Alternatives, autonomy, benefits, complications, informed consent, patient rights, privacy, respect, risk	<i>See Primary General Readings</i> AORN Guidelines: Patient Information Management, p. 600
5. Ensure patient rights/advance directives, DNR	Advance directive, allow natural death (AND), CPR directive, DNR, living will, medical durable power of attorney, Patient Self-Determination Act (PSDA)	AORN Position Statement: Perioperative care of patients with do-not-resuscitate orders AORN Guidelines (2015): Perioperative explications 1.4, p. 714-715
6. Pain assessment	Allergies , analgesia, narcotics, NSAIDS, nonpharmacological interventions, opioids, pain block, pain intensity scales, PCA, pharmacology, regional anesthesia, self-report, signs, symptoms, The Joint Commission	Alexander's: Chapters 5, 10, 26, 27 B&K: Chapters 8, 30
7. Development of nursing diagnoses	NANDA, nursing diagnosis, PNDS	AORN Guidelines: Healthcare information management, p. 555-556

Domain 2: Identify Expected Outcomes and Develop a Plan of Care 10%

Primary General Readings:

Alexander's Care of the Patient in Surgery: Chapter 1; Unit II: Surgical interventions

Berry and Kohn's Operating Room Technique: Chapters 2, 7, 21, 26

Topic	Key Words	Additional Readings
1. Identify and plan for expected patient outcomes	Nursing diagnoses , preoperative nursing interventions, patient needs	<i>See Primary General Readings</i>
2. Develop an individualized plan of care	Age-specific, anxiety, behavioral responses , collaboration, comfort, cultural/ethnic diversity , legal/ethical standards, medications, pain management, physiological responses , patient-centered, resources, SCIP protocol, spiritual needs, transcultural	AORN Guidelines: Patient Information Management, p.592-593 Alexander's: Chapters 26, 27 B&K: Chapters 8, 9, 11
3. Prepare for perioperative safety needs	Chemical, radiation, fire, laser, positioning	AORN Guidelines: <ul style="list-style-type: none"> • Electrosurgery • Laser safety • Reducing radiological exposure • Ambulatory supplement: reducing radiological exposure • Positioning the patient Alexander's: Chapters 2, 3, 6 B&K: Chapter 13
4. Adhere to standard and transmission-based precautions	Hand hygiene, PPE , contact, droplet, airborne	AORN Guidelines: <ul style="list-style-type: none"> • Hand hygiene • Transmissible infections Alexander's: Chapter 4, p. 80-84 B&K: Chapter 15, p. 254-256

Domain 3: Intraoperative Activities 27%

Primary General Readings:

AORN Guidelines: Minimally Invasive Surgery

Alexander's Care of the Patient in Surgery: Chapters 2, 4, 6

Berry and Kohn's Operating Room Technique: Chapters 2, 11, 25, 27

Topic	Key Words	Additional Readings
1. Optimize physiological patient responses	Hyperthermia, hypothermia, infection control, infection prevention, patient temperature control, perfusion, surgical procedure, wound classification, wound healing	AORN Guidelines: Hypothermia B&K: Chapter 29
2. Optimize behavioral patient responses	Comfort, anxiety, medication, pain management, cultural, ethical, and spiritual needs,	<i>See Primary General Readings</i>
3. Monitor and maintain patient and personnel safety	Body mechanics, chemical, counts, documentation, ergonomics, equipment, manufacturer's instructions for use (IFU), fire, hazardous materials, lead aprons, National Patient Safety Goals, smoke plumes, laser, laser goggles, positioning, radiation, Universal Protocol, WHO checklist	AORN Guidelines: <ul style="list-style-type: none"> • Energy-Generating Devices • Radiation Safety • Reducing radiological exposure • Ambulatory Supplement: Radiation Safety • Surgical Smoke Safety • Positioning the Patient • Sharps safety • Pneumatic Tourniquet • Prevention of Retained Surgical Items • Ambulatory Supplement: Prevention of Retained Surgical Items • Healthcare Information Management • Patient Information Management Alexander's: Chapters 3, 7 B&K: Chapters 3, 13, 20, 22, 31
4. Prepare the surgical site	Patient dignity, modesty, privacy, positioning, skin prep antisepsis	AORN Guidelines: <ul style="list-style-type: none"> • Positioning the Patient • Preoperative Patient Skin Antisepsis B&K: Chapters 26
5. Monitor and evaluate effects of pharmacologic/anesthetic agents	Anesthesia agents, labeling, medications, pain management	AORN Guidelines: <ul style="list-style-type: none"> • Managing the patient receiving moderate sedation/analgesia • Medication safety • Ambulatory supplement: medication safety • Care of the patient receiving local anesthesia Alexander's: Chapter 5 B&K: Chapters 23, 24

Primary General Readings:

AORN Guidelines: Minimally Invasive Surgery

Alexander's Care of the Patient in Surgery: Chapters 2, 4, 6

Berry and Kohn's Operating Room Technique: Chapters 2, 11, 25, 27

Topic	Key Words	Additional Readings
6. Maintain sterility of surgical field	Aseptic technique, expiration date, instruments, package integrity, sterile, surgical products	AORN Guidelines: <ul style="list-style-type: none"> • Surgical Attire • Hand Hygiene • Sterile Technique • Product Selection • Prevention of Transmissible Infections • Ambulatory Supplement: Prevention of Transmissible Infections Alexander's: Chapter 4 B&K: Chapters 15, 16
7. Control environmental factors	Air exchanges, humidity, noise, room temperature, traffic	AORN Guidelines: <ul style="list-style-type: none"> • Environmental Cleaning • Safe Environment of Care, Part 2 Alexander's: Chapters 3, 4 B&K: Chapters 10, 11, 12
8. Specimen management	Documentation, explant, implant , verification	AORN Guidelines: <ul style="list-style-type: none"> • Specimen Management • Autologous Tissue Management Alexander's: p. 32-33 B&K: Chapter 22
9. Anticipate and prevent hemodynamic complications	Autotransfusion, blood products, blood transfusion	Alexander's: Chapter 11, p. 300, 302; Chapter 12, p. 359, 377; Chapter 23, p. 875; Chapter 28, p. 1109-1110, 1115 B&K: Chapter 8, p. 133; Chapter 31, p. 608-615; Chapter 44, p. 915-916

Domain 4: Communication 10%

Primary General Readings:

AORN Guidelines: Transfer of Patient Care Information

Alexander's Care of the Patient in Surgery: Chapter 2. Each chapter in Unit II has discharge planning information pertinent to that specialty.

Berry and Kohn's Operating Room Technique: Chapters 6, 7, 21

Topic	Key words	Additional Readings
1. Communication techniques	Barriers, hand-offs/hand overs , patient status	Alexander's: Chapter 1, p. 9; Chapter 10, p. 270-271; Chapter 26, p. 1013, 1016; Chapter 27, p. 1091 B&K: Chapter 1, p. 11; Chapter 2, p. 19; Chapter 6, p. 77-78; Chapter 25, p. 470-471; Chapter 41, p. 839
2. Interviewing techniques	Preoperative assessment	Alexander's: Chapter 1, p. 3-5; Chapter 26, p. 1009-1011; Chapter 30, p. 1169 B&K: Chapter 21, p. 368-370
3. Information technology	HIPAA , security rules, software applications	AORN Guideline: Healthcare Information Management, p. 555-575 Alexander's: Chapter 1, p. 13-14 B&K: Chapter 2, p. 18; Chapter 10, p. 182-183
4. Reporting to interdisciplinary team	Allergies , critical lab values, medications , hand offs , hand offs/hand overs , HIPAA , implants , SBAR, verbal orders	Alexander's: Chapter 1, p. 9; Chapter 10, p. 270-271 B&K: Chapter 2, p. 18
5. Patient education	Documentation , family, health literacy, HIPAA , read back, teach back	Alexander's: Chapter 8, p. 216. Chapter 13, p. 390. B&K: Chapter 2, p. 19; Chapter 21, p. 370-371

Domain 5: Transfer of Care 6%

Primary General Readings:

Alexander's Care of the Patient in Surgery: Chapter 10. Each chapter in Unit II has discharge planning information pertinent to that specialty.

Berry and Kohn's Operating Room Technique: Chapters 11,30

Topic	KeyWords	Additional Readings
1. Interdisciplinary services for coordinating care	Continuity of care, hand-off/hand over , interdisciplinary, PACU, transfer of care criteria	AORN Guideline: Transfer of Patient Care Information, p. 669-674 Alexander's: Chapter 2, p. 22, 28 B&K: Chapter 25
2. Discharge planning for the patient leaving the facility	Discharge, regulatory guidelines, wound care	AORN Guidelines: <ul style="list-style-type: none">• Medication safety, p. 306,308;• Care of the Patient Receiving Moderate Sedation/Analgesia, p. 631-633 Alexander's: Chapter 2, p. 18-22; p. 41-42

**Domain 6: Cleaning, Disinfecting, Packaging, Sterilizing,
Transporting, and Storing Instruments and Supplies 9%**

Primary General Readings:

AORN Guidelines: Instrument Cleaning; Packaging Systems; Sterilization

Alexander's Care of the Patient in Surgery: Chapter 4

Berry and Kohn's Operating Room Technique: Chapters 17, 18

Topic	Key words	Additional Readings
1. Cleaning and disinfecting instruments and supplies	Bioburden, biofilm, cleaning, critical item, decontamination, decontamination area, disinfection, documentation, enzymatic cleaner, FDA, germicide, high-level disinfection, loaner instrumentation, low-level disinfection, non-critical item, PPE, semi-critical item, Spaulding classification, ultrasonic cleaner	AORN Guidelines: <ul style="list-style-type: none"> • High Level Disinfection • Processing Flexible Endoscopes Alexander's: Chapter 8, p. 218-222
2. Packaging and sterilization of instruments and supplies	Dynamic air removal, gravity displacement, hydrogen peroxide gas plasma sterilization, immediate use sterilization, implants, load, packaging, prevacuum, steam, sterilization	<i>See Primary General Readings</i>
3. Documentation required for monitoring safe sterilization practices	Biological indicator, Bowie-Dick, chemical indicator, documentation, emulating indicators, load parameters, physical monitor, pressure, temperature, regulations, tracking	<i>See Primary General Readings</i>
4. Principles of transporting and storing equipment, sterile supplies, and instruments	Controlled conditions, event related, regulatory requirements, shelf life, storage, time related, tracking, transportation, vendors	AORN Guidelines: Sterilization: pp. 879-881 AORN Position Statement: Role of the Health Care Industry Representative
5. Safe handling of hazardous/biohazardous materials	Blood, bloodborne pathogen, chemotherapy drugs, CJD, ETO, glutaraldehyde, radioactive materials	AORN Guidelines: Environment of Care, part 1, p. 257-260 B&K: Chapter 7, p. 110; Chapter 13, p. 221-222; Chapter 14, p. 240-241

Domain 7: Emergency Situations 11%

Primary General Readings:

Alexander's Care of the Patient in Surgery: Chapter 28

Berry and Kohn's Operating Room Technique: Chapter 13, 31

Topic	Key Words	Additional Readings
1. Prepare for and manage anaphylaxis	Allergy, anaphylactic shock , anaphylaxis, latex free, latex safe, sensitivity, transfusion reaction	AORN Guidelines: <ul style="list-style-type: none"> Safe Environment of Care, p. 255-257 Medication Safety, p. 306 Alexander's: Chapter 2, p.35-38, Chapter 3, p. 64-65, Chapter 4 p. 113
2. Prepare for and manage cardiac arrest	Advanced cardiac life support, basic life support, cardio-pulmonary resuscitation, ischemia, myocardial infarction	B&K: Chapter 31, p. 599-606
3. Prepare for and manage Malignant Hyperthermia	Acidosis, calcium, Dantrium, dantrolene sodium, dysrhythmia, hypercarbia, hyperkalemia, hypermetabolic, hyperthermia, tachycardia, trigger	Alexander's: Chapter 5, p. 151-152, Chapter 10 p. 277, Chapter 26 p. 1017
4. Prepare for and manage respiratory complications	Airway obstruction, anoxia, arterial blood gas, aspiration, atelectasis, bronchospasm, difficult airway, hypoxia, laryngospasm, pneumothorax, pulmonary edema, pulmonary embolism	Alexander's: Chapter 5, p. 140-143, Chapter 10, p. 274-275, 279-280
5. Prepare for and manage victims of trauma	ARDS, autotransfusion, blunt trauma, DIC, diagnostic tests, DNR, end of life care, MAST, mechanism of injury, multisystem, organ donor, rapid sequence intubation, shock , trauma, traumatic brain injury, triage	Alexander's: Chapter 26, p. 1065-1069; Chapter 28 B&K: Chapter 3, p. 51-52; Chapter 7, p. 113-117; Chapter 29, p. 568-569; Chapter 37, p. 773; Chapter 45, p. 933-941
6. Prepare for and manage fire	Burn, explosion, flammable, fuel, ignition source, oxygen, RACE, PASS, thermal injury	AORN Guidelines: <ul style="list-style-type: none"> Energy-Generating Devices, p. 148 Environment of Care, Part 1, p. 246-250 Alexander's: p. 33-34, 244-246, 640 B&K: p. 218-220
7. Prepare for and manage terrorism	Bioterrorism, bomb, mass casualty	Alexanders: Chapter 4, p. 84-86 B&K: Chapter 14, p. 246-247

Domain 8: Management of Personnel, Services, and Materials 6%

Primary General Readings:

Alexander's Care of the Patient in Surgery: Chapter 1

Berry and Kohn's Operating Room Technique: Chapter 6

Topic	KeyWords	Additional Readings
1. Management of the interdisciplinary team	Allied health care providers, competency, delegation, mentor, management, patient acuity, scope of practice, staff education, supervision, support personnel, UAP	AORN Perioperative explications for ANA Code of Ethics found at www.aorn.org , Clinical Resources, Code of Ethics (members only) AORN Position Statement: <ul style="list-style-type: none"> • Safe Staffing and On-Call Practices • Responsibility for Mentoring B&K: Chapters 2, 4 National Council of State Boards of Nursing, http://www.ncbsn.org/1625.htm
2. Principles of product evaluation and cost containment	Cost containment, environmental consciousness (go green), fiscal responsibility, product evaluation, product selection, recycling, reprocess, resource management, single-use device, supply management	AORN Guidelines for: <ul style="list-style-type: none"> • Sterilization • Product Selection AORN Position Statement: Environmental Responsibility Alexander's: Chapter 4, p. 102-103 B&K: Chapter 17, p. 297-299; Chapter 25, p. 477-478
3. Management of ancillary personnel in the perioperative setting	Accountability, ethics, family, health care industry representative, loaner instrumentation , patient rights, patient privacy, student, vendor, visitor	AORN Position Statements: <ul style="list-style-type: none"> • Role of the Healthcare Industry Representative in the Perioperative Setting • Allied Health Care Providers and Support Personnel in the Perioperative Setting • Value of Clinical Learning Activities in the Periop Setting in Undergraduate Nursing Curricula Alexander's: Chapter 2 B&K: Chapter 1
4. Management of environment of care	Biologic implants, PPE , preventive maintenance, room turnover, spills, terminal cleaning,	AORN Guidelines: <ul style="list-style-type: none"> • Environmental cleaning • Autologous tissue management Alexander's: Chapter 4, p. 120-121 B&K: Chapter 12; Chapter 28, p. 553-557

Domain 9: Professional Accountability 9%

Primary General Readings:

AORN. (2017) Perioperative Explications for ANA Coode of Ethics. Found at www.aorn.org, Clinical Resources, Code of Ethics (members only)

Alexander's Care of the Patient in Surgery: Chapter 1

Berry and Kohn's Operating Room Technique: Chapters 2, 4, 6

Topic	Key Words	Additional Readings
1. Principles of social policy	Accrediting agency, advocacy , best practice, board of nursing, community standard, evidence-based practice, guidelines, nurse practice act, patient rights, position statement, recommended practices, regulation, regulatory standards, scope of practice, standard, statute	<i>See Primary General Readings</i>
2. Resources for professional growth	Best practice, certification, competency, continuing education, life-long learning, professional organization, self-assessment, staff education	<i>See Primary General Readings</i>
3. Participation in quality improvement activities	Audit, best practice, change, evidence-based practice, information literacy, measures, performance improvement, Plan-Do-Study-Act, quality assurance, quality improvement, research, risk management, shared governance	<i>See Primary General Readings</i>
4. Facilitating professional behavior	Chain of command, collegiality, confidentiality, culture of safety, delegation, ethics, healthy work environment, horizontal violence, just culture, lateral violence, patient advocate , professional growth, professional standards	AORN Position statements: Criminalization of Human Errors Alexander's: Chapter 3 B&K: Chapters 1, 3