Produced by CCI, the official governing body of the CNOR certification program

This preparation guide has been developed to provide resources and guidance for the perioperative nurse who is preparing for the CNOR examination. The perioperative nurse’s scope of practice has been used as the overall basis for the organization of this publication and also serves as the basic framework for each chapter.

The Competency & Credentialing Institute presents this publication to enhance the knowledge and skill level of the perioperative nurse who strives to demonstrate achievement in practice. Using this book as a study guide, however, is not required, nor does it guarantee successfully passing the exam.

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Earning the CNOR® credential is a highly sought after professional and personal goal. As a certified perioperative nurse, you demonstrate your competency every day in support of quality patient care. CCI wants to help you achieve this professional milestone by providing materials to help you prepare for your certification exam.

The CNOR Exam Study Guide is just one of many tools that CCI offers as an aid to your preparation for the CNOR examination. Depending on your level of experience, it may be necessary to access other resources in addition to this book, because the CNOR exam is a comprehensive assessment of every facet of perioperative nursing practice.

This Guide is designed to build on your current knowledge and experience by providing opportunities to engage in critical-thinking exercises. Interactive learning activities ask you to apply current best practices to common clinical situations encountered by a nurse with two years of experience. It is highly recommended that you use the references cited in each module to complete the exercises in this book. The answers to the questions on the CNOR exam are based on these same references.

Before you start reviewing the material, please note that this Guide contains features that help to make it a more useful preparation tool. These include:

- A section titled “How To Use This Book” that outlines the book format and learning activities (page 11).

- A section titled “Strategies for Success: Getting Prepared and Being Test Wise” to help you prepare to take the exam. You will find information on the process involved in answering multiple-choice questions and test-taking strategies from an exam development expert (page 16).

- A self-assessment to help you evaluate your current knowledge and skills and guide you in developing your own study plan (page 28).

- A learning needs assessment that matches current knowledge with content on the exam (page 31).
Preface

- A study plan with a suggested template for organizing and focusing on key components of the exam (Appendix A, pages 267-272).

- A CD that contains master forms used in the learning activities so that additional copies may be made; 25 of the popular “Questions of the Week” with detailed answers and additional references, taken from CCI’s Perioperative Question of the Week on Facebook (http://www.facebook.com/pages/Perioperative-Nursing-Question-of-the-Week/146850858661159?ref=ts); and instructions for completing a concept map.

- A list of the domains covered in the exam, with pertinent topics listed under each domain to help guide your studying (Appendix B, pages 273-282).

Studies show that people retain more information when they use an interactive learning approach that includes reading the information, talking about it, and writing it. We encourage you to use this workbook as the basis for studying with a group of your peers and fellow exam-takers. You may also want to contact a CCI Champion in your institution for guidance. CCI Champions understand the value of certification and help mentor nurses seeking the CNOR credential. A list of Champions is available on our web site (cc-institute.org) under the “Champions” tab.

If you have questions about this Guide or preparing for the CNOR exam, please contact CCI at (888) 257-2667. *Good luck as you embark on this exciting phase of your career.*

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Note: Concept maps created with templates from https://bubbl.us.
How To Use This Book

Overview

This book is probably different from other study guides you may have used to prepare for exams. It certainly is different from previous Guides to CNOR Exam Preparation. Instead of providing a summary of a specific topic with sample test questions, the format has been reversed — you are expected to bring the knowledge accrued from your years of experience and your readings of recommended reference materials, and apply it to problem-based scenarios and questions that are based on actual clinical situations. These learning activities should not be considered all-inclusive for what will be covered on the exam; rather, they should be viewed as “brain templates,” or a way to approach problem-solving any clinical issue. It is hoped that this active thinking process will serve you well, not only for the purposes of studying for the exam, but also in your professional practice. After all, passing the exam is just the beginning, not the end, of your continued quest for competence.

Getting Ready: References and Resources

Hypothetically, if one has experience with a variety of types of cases in a work environment that supports current best practices, it may not be necessary to study for the exam at all. Your practice would already mirror the correct answers on the exam. However, most of us feel more secure reviewing the topics that will be covered on the exam. It’s important to remember that the exam is based on best practices as reflected in the current literature, which may differ from the clinical practice at any one facility.

Although there are many quality perioperative resources available on the market today, both this Guide and the exam are based on information found in four key reference books. Use the most current edition of each of these books for studying. Best practices change over time (how many of us remember doing a pre-op shave for our patient the night before surgery?), and you will not save money by purchasing or borrowing outdated materials and possibly jeopardizing your chances of successfully passing the exam.
Reading assignments from these books are included at the beginning of each module in this guide. Using these books will help you respond to the learning activities and prepare for the content covered on the exam.

**Required Reference**


This is the primary resource that guides our perioperative practice. It may be purchased at www.aorn.org. Being a member of AORN allows you to purchase this book, as well as other references in their bookstore, at a discount. Members also receive a discount on the CNOR exam application fee. Supporting AORN is an important part of our responsibility as professional perioperative nurses. Along with the CNOR credential, it demonstrates a commitment to quality, safe patient care.

**Highly Recommended References**

Any of the following will be sufficient; it is not necessary to purchase all of them.


Depending on your clinical practice, you may want to supplement these books with additional resources on pharmacology, pathophysiology, or diagnostic/lab values. Space prevents a more extensive list, but a sampling of recently published books is provided below. This list is not all-inclusive, and there are many other good references available. It’s important to find a book that is easy for you to use and that contains the most current information available.

**Pathophysiology**

Introduction


Laboratory/Diagnostic Tests


Pharmacology


Nursing Diagnoses

- AORN. (2011). *Perioperative Nursing Data Set*. Denver, CO.

Making This Guide Work for You

Each chapter in this guide is based on a domain, or topic, found on the exam. The format of this book encourages you to write in it, reflect on your progress, and identify your strengths and areas for improvement. Make it your own. Each chapter is organized as follows.

The percentage of questions on a particular domain is found at the beginning of the chapter. If study time is in short supply, this may help you organize your time by focusing on the chapters with the highest percentage of questions.

Modules are organized based on the tasks and knowledge statements found in each domain (see Appendix B). They help organize the “chunks” of information and make the process of studying more manageable.

Competency outcomes are provided for successfully completing the chapter. This allows you to quickly check to see if you already know the content, or will need to review it.

Tip for Success

Your facility may already have an online formulary available for you to use at no cost. An excellent online resource is epocrates (https://online.epocrates.com/home). It’s free, is updated frequently, and can be downloaded to your PDA or smart phone.
Introduction

Detailed reading assignments cover the content for the domain. This information will also be used to complete the learning activities.

Key words help to further focus your reading on relevant content.

Case study activities are based on our sample patient, introduced in Chapter 1.

Learning activities require application of the content from the reading assignments and prerequisite knowledge and skills. These learning activities may be any combination of short answer, fill in the blank, multiple choice, or scenario-based.

Skill building activities encourage you to take advantage of additional learning opportunities in your clinical setting.

The summary at the end of each chapter provides “golden rules” for competent practice.

A glossary at the end of each chapter defines words or terms that may be unfamiliar. Answers to learning activities are provided at the end of each chapter.

Additional readings and resources are included at the end of each module.

How to Use the CD

The CD contains supplemental information to enhance the activities in the workbook. Instructions on how to develop a concept map (introduced in Chapter 1), perioperative questions that encourage dialogue with your peers and critical thinking, and blank templates for many of the forms found in your book are additional learning tools.

A Note on Taking Practice Tests

Many people like to use sample tests as part of their studying routine. This is in no way a requirement for successfully passing the exam. If you decide to purchase practice questions, the following information will be helpful in maximizing their usefulness.

The purposes of the sample test questions are twofold: to provide an experience similar to taking the actual CNOR exam, and to evaluate your knowledge of a particular topic. These multiple-choice questions are comparable in form and content to the types of questions on the actual CNOR certification exam. If testing anxiety is a concern, completing the practice test should mirror the actual exam as closely as possible. Resist the urge to immediately look up the answer to each question. You won’t be able to do this on the actual exam, which may be a source of additional anxiety on testing day.

Many nurses find answering practice test questions helpful in preparing for the exam, but it is important to understand this tool’s limitations. First, these questions WILL NOT be found on the actual exam. The practice questions should not be used as a substitute for
studying. Answering the sample questions multiple times has limited benefit, as you will begin to memorize not only the answers, but the questions, which diminishes their value as a tool to evaluate what you know or don’t know. Other tips for utilizing the practice questions to their fullest potential:

- For all the questions, look up the rationale in your text books, whether you answered the question correctly or not. Active involvement in the learning process means you’ll be more likely to remember the content, and provides the “why” that you can then apply to similar questions.

- Look at trends; missing multiple questions in a single domain (for example, preoperative assessment or emergency situations) means extra studying and/or clinical exposure is needed in those areas.

- Take the “big picture” view of incorrect answers; missing a question on a particular drug means you will want to review that drug, but it may also signify a knowledge deficit in pharmacology in general.

It is important to remember that the level of success in answering the practice questions in no way transfers to success on the actual exam. More preparation ideas for test-taking can be found in CCI’s *CNOR Candidate Handbook* (at cc-institute.org) and in the next section.

**Guide to Activities**

Several types of activities are included in this *Guide*. Activities to be completed within the printed book include matching, fill-in-the-blank, and other types of exercises. An example of a matching activity is shown at the right.

Activities that require the learner to seek outside information or perform tasks outside the printed book (e.g., on the CD) are called “Go To Activities” and appear in a framed box.

Exercises related to the Case Study introduced in Chapter One are labeled as such and outlined in orange.

**Let’s Get Started!**

By now you are either excited about starting on your journey to validate your practice as a competent perioperative nurse, or are overwhelmed at the magnitude of the task ahead. Both emotions are totally normal. Just remember that the test is based on what a nurse with two years of practice is expected to know. As a person eligible to take the exam, you already have met this criterion. So... let’s get started!
Being successful at passing the CNOR certification examination for perioperative nursing requires having a thorough and sound foundation of the knowledge and skills required for competent clinical practice, as well as an understanding of the test-taking process. Knowledge is attained through work experiences and independent learning, as well as through formal educational programs. The experiential knowledge component requires that an individual who is eligible to take the CNOR certification examination has a minimum of two years of work experience in perioperative nursing. The knowledge component is acquired through a variety of learning activities, including formal education, self-study, and continuing education programs, all aiming to promote continuing competency. It is the combination of experiential and cognitive knowledge that forms the foundation of competent clinical practice.

In addition to evidence-based clinical knowledge, you will also need to have a firm understanding of the testing process. Being familiar with the testing process will not only prepare you to take the test, but will also acquaint you with the environment in which the test will be given. There is a definite skill in answering multiple-choice test questions. Becoming familiar with techniques for responding to multiple-choice questions will improve your chances of successful performance on the CNOR certification examination.

This chapter provides information about planning your personalized study program, obtaining the necessary resources to assist in your preparation, understanding the processes involved with answering multiple-choice test questions, and developing sound test-taking strategies to lead to success on your CNOR certification examination.

**Learning Objectives**

Upon completion of this section, the individual will be able to:

1. Identify specific content areas in perioperative nursing where further study is needed.
2. Develop an action plan for acquiring additional knowledge in content areas where needed.
3. Identify resources that will be of assistance in preparing for the CNOR certification examination.
4. Identify the major features of multiple-choice test questions.
5. Develop skill in applying test-taking strategies when answering multiple-choice test questions.
6. Plan a success-oriented action plan for taking the CNOR certification examination.
Developing Good Study Habits

Making the initial commitment to take a certification examination is an important decision. For most test takers, becoming certified in a specialty area of nursing practice accomplishes both personal and professional goals. The personal goal is a feeling of accomplishment — tackling a task that may be difficult yet, at the same time, rewarding. Professionally, certification provides external recognition of excellence in nursing and may promote career advancement. In addition, certification is a symbol of achievement that distinguishes the credential holder from others in the field. The certification holder can proudly state that he or she has met a standard of achievement established by experts in nursing. It is truly an accomplishment to acquire certification as a CNOR.

The next step in the certification process is determining what your personal investment will be in preparing for the examination. And what a personal investment it is! Perhaps the easiest part is completing the application and paying the examination fee. The more difficult part is realistically determining what you want to do and can do to prepare for the examination. Each person will need to decide what works best for him or her. Ultimately, when you go to your examination, you want to be certain you are as prepared as you can be and are confident about your ability to demonstrate your command of perioperative nursing knowledge.

Preparing to take the CNOR examination may seem like an overpowering task. Answering the following questions may help organize your study plan.

Question #1 — Should I study for the examination?

Studying for the examination is your choice and is, in no small way, a decision based on your years of experience in perioperative nursing. While experience is critical, your personal work experiences may not have provided you with the broad range of skills and knowledge needed to be successful on the certification examination. Remember, a certification examination is a general examination that will ask questions about many areas of perioperative nursing. Ask yourself whether your experiences in perioperative nursing have been broad enough to prepare you for all content areas that might be included on the test. Are there areas of practice with which you have not had work experience or where standards of practice may have recently changed?

So, do you need to study? Conduct a self-assessment to determine your chances for passing the certification examination. How do you do that?

An excellent starting point is to review critical documents, including the **CNOR Candidate Handbook**, found at cc-institute.org; the CNOR Exam Study Plan; and the current AORN **Perioperative Standards and Recommended Practices**. Turn to page 31 to complete your learning needs assessment. Assess your “level of competency” for each content area. Conduct this assessment before you register and schedule your examination to
allow sufficient preparation time before the examination. Use a rating scale such as the one below to determine what you believe to be your current level of competency.

1 — Very Certain: I know this content area well and believe that my work experiences have fully prepared me. I am comfortable with current practices and believe I am up-to-date with new developments and advances.

2 — Certain: I am reasonably comfortable with this content area and believe that my work experiences have prepared me fairly well.

3 — Undecided: I have some knowledge and some experiences in this area, but there may be a few content areas where I am not as strong or for which my work experiences have not fully prepared me. I may not be current in all areas of perioperative nursing.

4 — Uncertain: I am aware that I have some knowledge deficits and/or a lack of work experience in this content area. I will need to engage in some study or other remediation to be comfortable with this content area.

5 — Very Uncertain: I am aware that I have many knowledge deficits and/or lack work experiences in this content area. These areas of weakness will require me to engage in remediation activities before taking the examination.

Apply this rating scale to each domain of the CNOR Candidate Handbook. Be completely honest with your learning assessment — remember, it is intended to help you prepare for the CNOR examination. If you rate all areas as 1 or 2, you may find that you will need little to no preparation before taking the examination. If, on the other hand, you find that you have a mixture of responses, rating some 1 and 2 and other 3, 4, or 5, you may find it very useful to develop an individualized study plan that will allow you sufficient time to prepare before taking the examination. Appendix B (pages 273-282) has a more detailed breakdown of subjects included in each section, or domain, of the exam.

Knowing that you have done all you can to prepare for taking the CNOR certification examination will give you that extra boost of confidence! It also will help you determine when to schedule your examination within the testing period.

Be realistic! Preparing for the examination will be best completed over a period of weeks, not days or hours. Unexpected events will occur which may take away from your preparation time. Don’t shortchange yourself. Allow sufficient study time before the examination.

**Question #2 — What is the most important content to study?**

Go back to the learning needs assessment you completed when making the decision whether to study. Consider dividing the content areas from the CNOR Candidate Handbook into three broad areas:
Area 1 — Content that I have knowledge strengths.

Area 2 — Content that is mixed; I may know some areas but have weaknesses in others.

Area 3 — Content that I know I have knowledge weaknesses.

Then look at the proportion of the test that is dedicated to each area you identified (Appendix C, page 283). Concentrate your study time on those areas where you have the greatest knowledge weaknesses and where the largest percentage of test questions will be represented. Tackle those needs FIRST, before going on to other areas. Each chapter in this interactive guide outlines the percentage of questions found on that topic on the examination.

**Question #3 — What is the best study style for me?**

Once you have decided that you do want to study for the examination and you have developed a study plan specific to your needs, next determine a study style that works best for you. Remember back to your school days. What worked best for you then? Were you more successful when you studied alone in the privacy of your own study space? Or were you more focused when you studied with others? Maybe a combination study style works best for you — individual study for reviewing familiar concepts and group study for learning new content areas.

What will likely be different now from your earlier study experiences in high school or college is the amount of time you have available for study. Looking back, those earlier days were a lot easier when you had fewer commitments. As you prepare for your certification examination you must balance your other commitments (e.g., family, work) with your need to prepare for the examination.

Plan the best time for taking the examination. If you know that the next few months are especially busy for you with unusual work expectations (e.g., staff shortages, preparing for an accreditation visit) or family responsibilities (e.g., vacation, childcare, holidays), don’t add to these burdens by scheduling the examination during that period. Remember, you have the flexibility to choose a testing time that works best for you.

Because the CNOR certification examination is available Monday through Saturday throughout the year, register and schedule the examination at a time that is best for you — a time that allows you adequate preparation and no other major commitments or conflicts. Please visit the CCI website (www.cc-institute.org) for current testing deadlines and windows.

Remember, this certification examination is important for you both personally and professionally. Once you have made the commitment to take the examination, commit also to developing a personalized study plan — and stick to it! Engage help from your family, friends, and colleagues to stick to your study plan.
Question #4 — How do I plan and manage my study time?

Once you have completed your learning needs assessment and identified what you need to study, you will be able to develop a study schedule that, if adhered to, should guide you to a successful testing experience. Study to your weaknesses. Obviously, the more knowledge weaknesses you identify in major areas that will be covered on the CNOR certification examination, the greater time you will need to allow for fulfilling your study schedule.

Most important is to stay focused and committed to your study plan. You will be most confident if you plan for your study time and stick to the study schedule you develop. Use your study time wisely. Make use of any spare time that you have to review concepts.

Here are some suggestions to make the best use of your study time.

- Make a timeline, based on the date for your examination, which outlines specific daily and weekly study time commitments. Make sure your timeline takes into account personal lifestyle issues (work schedule, holidays, family responsibilities, etc.) that will impact the time available to study.

- Set a study schedule and stick with it. Use the study plan found in Appendix A (pages 267-272) to help you organize your time. Engage the help of friends and family to help you stay focused and motivated.

- Prepare a work area where you can leave your study materials so that they are readily available.

- Try to study a little every day, instead of long sessions sporadically; you’ll retain more, and it gives you more opportunities to review the material. Repetition is important for learning.

Question #5 — What do I study?

A list of recommended references is found in the study plan and in the introduction to this book. Don’t forget online resources that provide additional sources of study materials. There are excellent resources that can be found through the Internet. Consider combining your study preparation with earning continuing education credit. Complete continuing education programs that can be found online, or simply call up a topic of interest and search the Internet to see what is available.

Handy Study Tips

- Consider making flashcards out of index cards and carry those with you everywhere. You can turn even an extra five minutes into valuable study time.
• Balance “old” learning with “new” learning. As you prepare for the examination, you will find some content areas where you need to simply review or “brush up” on your knowledge. In other cases, you may discover “new” content areas that you will need to learn. Remember that the examination is a general examination of perioperative nursing, and the content areas evaluated by the examination may include areas in which you have not previously worked. Try to balance your study sessions to allow some new knowledge gains along with the review of more familiar content.

• Use your work setting as your personal learning lab. In some ways, each workday provides you with an excellent opportunity to prepare for the examination. See how you can build in new knowledge in your daily activities. For example, are you administering a drug that is not used frequently? Use that opportunity to go to a reference and learn more about the drug. Are you assisting in a new surgical procedure? Ask questions of your colleagues and find out all you can, especially about areas that are less familiar to you.

• Let your work colleagues know that you are preparing for your certification examination. Sharing your plans to take the certification examination with your work colleagues will accomplish two purposes. First, ask them to “remind” you that you need to prepare for the examination. Your colleagues can be a great source of support and encouragement. Give them the “okay” to ask you if you are on schedule with your preparation. Second, ask your colleagues to become your study coaches. Remind them to seek you out when they have an interesting surgical case or when there is a new learning opportunity. You may want to share with your colleagues the areas where you believe you have knowledge weaknesses so they can be on the alert for study opportunities that relate.

Stay focused on your goal. At some point in your study cycle, you will no doubt ask yourself, “Why did I decide to do this?” It is normal to feel a bit overwhelmed, but sticking to your goal will be rewarding.

**Components of a Multiple-Choice Test Question**

In addition to a planned study program, you should work to develop your knowledge and skill in answering multiple-choice questions. It is important that you understand the structure and format of this type of test question.

The CNOR certification examination is comprised of multiple-choice questions, written by experts in perioperative nursing. As such, each question is written to assess important knowledge and skills essential for competent perioperative nursing practice. Much effort goes into developing each question, including multiple reviews by many subject matter experts. Questions are never designed to “trick” the test taker. Rather, questions are designed to differentiate test takers who know the content from those who do not.
Each question on the examination is a four-option, multiple-choice test question (or item). A multiple-choice test question consists of the stem and the options. The stem provides the information that supports the question that is being asked. It should contain sufficient information for you to understand what is being asked, even by just reading it alone.

The stem is followed by four options, one of which is the correct answer (or key) as determined by a panel of content experts and validated by current literature. The other three options are the distracters, which are plausible but not correct answers. There is one and only one correct answer among the options provided.

The stem of each test question may be closed-ended or open-ended. A closed-ended question asks a complete question and ends with a question mark. An open-ended question is a type of fill-in-the-blank with the four choices provided as the options. Each of the choices will complete the statement.

The following are examples of each question format:

Closed-ended question:

Which of the following is the rationale for having perioperative nursing personnel immunized with hepatitis B vaccine?
1. Current legislation requires the immunization.
2. Occupational risk of acquiring the hepatitis virus is high. (Correct answer)
3. The immunization also provides protection against other forms of hepatitis.
4. Standard precautions require routine immunization for all bloodborne viruses.

Open-ended question:

Perioperative nursing personnel should receive hepatitis B immunization because:
1. current legislation requires the immunization.
2. the occupational risk of acquiring the hepatitis virus is high. (Correct answer)
3. the immunization also provides protection against other forms of hepatitis.
4. standard precautions require routine immunization for all bloodborne viruses.

The multiple-choice test questions used in the CNOR certification examination measure either basic knowledge or pose a situation where an application of the knowledge is required. Because clinical practice requires the ability to apply principles and facts to patient situations, most of the test questions on the CNOR certification examination are at the application level. The following are examples of these two types of questions:

Knowledge/Comprehension:

The loss of heat from exposed body parts due to exposure of air currents is known as:
1. evaporation.
2. conduction.
3. radiation.
4. convection. (Correct answer)

Application:

During skin preparation, the scrub person informs the perioperative nurse that the sleeve of a student’s warm-up jacket has brushed against the area being prepared. Which of the following would be an appropriate response for the perioperative nurse to take first?
1. Report the incident to the instructor for follow-up.
2. Have the student review the required technique.
3. Review skin preparation at the next in-service program.
4. Inform the student immediately of the break in technique. (Correct answer)

Before any question is added to the CNOR certification examination, it is “pretested” on a representative group of test takers to ensure that the question is clearly stated, that there is only one correct answer, and that the question performs statistically across all candidates as intended. This occurs before the question is included and scored in an actual test administration.

One point is given for each correct answer. The total score on the examination is the total points given for all correct answers. There is no penalty for guessing, so answer all questions. Budget your time wisely to complete the entire test.

Taking the CNOR Certification Examination

The CNOR certification examination is a computer-based test that is administered at a test center. Each testing candidate schedules an individualized testing appointment for a date and time that is convenient for them. Unlike paper-and-pencil tests where there may be several hundred individuals in the same room, the test center is designed to accommodate multiple tests and each person in the testing room may be taking a different examination. Some of these examinations may be shorter or longer than the CNOR certification examination, so you will notice that others either are leaving the room ahead of you or are still taking their examination when you have finished.

When the examination begins, you will first be given a brief on-screen tutorial that will orient you to taking a test on a computer. Remember that you do not need computer skills or familiarity with a computer to take the CNOR certification examination. And, even if you are very skilled in using a computer, the tutorial that is part of the examination will teach you how to navigate within this examination.

While the mouse is more commonly used, the keyboard is enabled for use in answering questions. In addition, the tutorial will provide instructions on using the various features: “Previous,” which allows you to return to a previously seen question; “Mark,” which allows you to identify specific test questions that you would like to return to at a later time.
whether you have answered the question or skipped it; and “Review,” which presents a list of all of the test questions and highlights those questions that you have marked. As you proceed through the test, you may skip a question and return to it later to answer. You may review questions at any time, or wait until the end of the test.

You should complete the tutorial in its entirety, focusing on how the features of the test operate so that you are familiar with these functions. Your answers to the practice questions in the tutorial are not included in your test score.

The test center staff that proctors the examination and monitors your activities will be located in a viewing area outside the testing room and are available if you need assistance. They are not content experts about perioperative nursing, so they are not able to provide you with any assistance about the test questions themselves. Their role is to monitor the activities in the testing room and report any unusual situations or inappropriate behavior. If you have a concern about a test question, you will have an opportunity to report your concern at the end of the examination.

You will find more information about the testing situation in the CNOR Candidate Handbook. In addition, your Authorization to Test (ATT) that will be e-mailed to you includes instructions about the day of the examination, what time to arrive at the testing center, what identification you will need, and other general guidelines.

**Hints for Taking Tests**

For many individuals, the CNOR certification examination will be the first test taken in many years. The mere thought of sitting for nearly four hours answering multiple-choice questions brings back memories of earlier testing situations. So it is important that you prepare yourself to be in the best physical and mental condition that is possible.

If you have not taken a computer-based test before, search out opportunities to practice using this method. Many hospitals’ annual competencies are computer-based. Many continuing education evaluations are also computer-based.

Keep yourself in good physical health before the examination date. You should plan to eat a balanced meal the evening before and then get a good night’s sleep. Sleep rather than cram the night before; your critical thinking skills are not based solely on the information you’ve memorized. Plan to eat breakfast before a morning appointment (or lunch before an afternoon appointment), because you will be in the testing room for 3 hours and 45 minutes. Avoid over-eating though, as too much food or liquids could make you tired. Feeling well and being rested are important strategies for success. You need to be able to read carefully and think clearly.

Some people become anxious about the testing situation and have difficulty focusing and processing complex information. One way to reduce this anxiety is for you to identify those portions of the exam day that are completely in your control. Be sure you know
the directions to the testing center and leave ample time for traffic delays. Make certain that the required admissions materials are collected the evening before (see “Day of Test Checklist”) and are readily available to you as you leave for your appointment.

**Test-Taking Guidelines**

Success in passing the certification examination takes more than just knowing the content. You need to understand how to read and answer multiple-choice test questions. There is a very simple and easy-to-follow strategy in taking multiple-choice tests.

When reading multiple-choice test questions, it is important to remember that there is one and only one correct answer. So, consider the following.

- Attempt to answer the question before reading the options, and then look for an option that best fits your answer. You should be able to answer a good multiple-choice question without reading the options.

- Cover up the options and see if you can determine an answer to the question being asked. Then, uncover the options. Often you will find that your answer is one of the options provided. In that case, your best course of action is to go with your first answer. Try to avoid changing an answer.

- Note that the options are written to be plausible to those who do not know the content. Well-written multiple-choice questions are designed to have four plausible options. The intent is to discriminate between those candidates who know the information and those who do not. If you are unsure of the answer, try to eliminate options that you believe are incorrect. This improves your chance of selecting the correct answer.

- Eliminate options that have absolutes, such as “always” or “never.” There is very little in nursing practice that is absolute. Most courses of action in clinical practice and most client responses are “usually” or “generally.”

- Read the question carefully, paying special attention to phrases such as “most,” “most appropriate,” “primarily,” “first,” and “initially.” Often, all of the options are applicable to the situation, but only one option fits the emphasis included in the stem.

- Take careful note of words such as “not,” “least,” or “except.” These words in the stem tend to confuse the reader, because the correct answer for the test question is the wrong response or the wrong thing to do.

- Answer all of the questions. Credit is given for all correct answers. So if you are unsure of an answer, take an educated guess among the plausible options.

- Monitor your progress by noting the time remaining on the computer screen. The
CNOR certification examination is timed to provide you with about one minute per question. If you find that you are taking more time than expected to answer a question, mark the question and return to it once you have finished reading through the entire test. You do not want to spend too much time reading one test question and then run out of time, leaving several questions at the end unanswered. Unanswered questions will be scored as incorrect.

- Review your work after you have completed the test. Once you have read through the test and answered as many questions as you can, you should return to review the questions that you may have skipped or marked for further review. Then, if there is available time when you have completed the entire test, you can review all of the questions and reconsider your choices. You should refrain from making too many changes. Often, test takers change a right response to a wrong response.

**How to Avoid Making Errors**

Being successful in passing the certification examination requires that you also avoid making mistakes in answering the test questions. One helpful strategy to avoid test-taking errors is to take practice tests. Become familiar with the format of multiple-choice questions. Use the CNOR practice tests as a method of improving your knowledge and identifying areas for further study.

When answering practice questions, consider the following as methods to avoid making testing errors:

- Read each question carefully. Errors are made when you do not read the question carefully and completely. Look for and identify the important points involved with the question. Read each option carefully, noting which option most closely matches the intent of the question. Eliminate the options that are not plausible.

- Assume that all of the information you need is presented in the test question. The stem of a multiple-choice test question should contain all of the information that is necessary for the test taker to answer the question. When you read the question, avoid the common pitfall of “reading into” the question. Doing this may only confuse you. If certain patient characteristics, such as age, diagnosis, clinical setting, or other related information, are important to know to answer the question, it will be provided. Otherwise, answer the question from the perspective of the most common situation.

- Identify content areas where your knowledge base is weak. Use the practice test as an opportunity to evaluate your current knowledge of perioperative nursing. When you answer questions incorrectly, use the opportunity to learn the reasons for the incorrect answers. Ask yourself, “Why was my choice wrong?” The best way to learn the content is to understand the underlying rationale for the correct as well as the incorrect answers.
• Understand the basic intent of the test question. One of the most common errors that test takers make is not understanding the intent of the question. Is the question asking for you to make a decision about identifying a priority, a sequence of events, or an important patient presentation? Often in these types of questions, all of the options are plausible for the situation, but the correct answer is the one that is most important, has the highest priority, or is the first action to be taken. Look for the guiding words that give you the direction or emphasis to take.

**Day-of-Test Checklist**

Within 24 hours before the examination, you should:

• Avoid engaging in any known stressful events. Many of us know what events tend to cause us stress. If at all possible, try to avoid engaging in or attending events that are known stressors just before taking the examination. Practice using relaxation methods to create a calm mental perspective about the test. This will enable you to think clearly and problem solve the questions.

• Obtain sufficient rest and sleep. Fatigue and lethargy will only inhibit your thinking and problem-solving abilities. Engage in any sleep rituals that tend to promote your sleeping ability.

• Limit use of any stimulants, including coffee. Stimulants will affect your ability to receive sufficient rest and sleep. Avoid taking any stimulants, including coffee, late in the day and before bedtime the night before the test.

• Arrive at the testing center at least 30 minutes before your test appointment. If you are unsure of the exact location of the test center, it is strongly suggested that you locate the test center ahead of time. Determine how long it will take you to drive there or go by public transportation, if applicable, by following the route before the day of your test. The test center can provide you with directions if you need them or go online and print out directions. Unforeseen and uncontrollable events, such as accidents or inclement weather, can cause delays in your travel time. It is far better to arrive early than to be late and miss your appointment.

• Limit the personal items you bring with you. You will not be permitted to take handbags, wallets, books, watches, cellular phones, laptops, or any other personal belongings into the testing room. The test center has lockers where you can store any items you bring. The proctor will provide you with scrap paper. There is no space at the test center for family members or friends to accompany you to your testing appointment.

• Make sure that you bring one form of identification with you to the test center. It must be current, government-issued photo identification, such as a driver’s license or a passport, with a signature. Be sure your identification matches exactly the name on your Authorization to Test letter.
After the Examination

Try to avoid “second guessing.” While it is common practice to “relive” the test experience, try not to second guess the responses you gave to each test question. Without the content of the question directly in front of you, it is too easy to “conclude” you may have answered incorrectly.

Do not share information about the test or test questions. Remember that you have signed a pledge to keep the contents of the CNOR certification examination confidential. Sharing information about the test or discussing specific questions about the test with colleagues or other test takers violates this confidentiality pledge. In addition, multiple forms of the examination are being administered so it is highly likely that the questions you saw on your test will not be the exact same questions another test taker saw.

Summary

Success occurs when you have made a detailed plan for preparing for the examination and have stuck to it! Essential components of success include:

- Identifying knowledge areas for review.
- Understanding the testing process.
- Being confident that your study habits have prepared you to be successful.

Self-Assessment for the CNOR Exam

CCI wants to help prepare you for success in seeking the professional credential for perioperative registered nurses (CNOR). The following self-assessment tool may be used to determine readiness for taking the exam, identify areas of strength and needed improvement, and aid in the development of a test preparation plan.

1. Have I met the criteria for eligibility to take the exam?
   - Yes
   - No
   - □ Have a current unrestricted RN license.
   - □ Be currently working full-time or part-time in perioperative nursing in the area of nursing education, administration, research, or clinical practice.
   - □ Have completed a minimum of 2 years and 2,400 hours of experience in perioperative nursing, with a minimum of 50% (1,200 hours) in the intraoperative setting.

   Please check the CCI website (www.cc-institute.org) for the most current eligibility requirements. CCI reserves the right to change eligibility requirements at any time.

2. Does my day-to-day practice involve a variety of surgical procedures, specialties, and patient age groups, or is my role restricted to one or two specialties or age groups?
My current practice involves the following types of cases: I will need additional exposure/information on the following types of cases:

My current practice involves the following types of cases: I will need additional exposure/information on the following types of cases:

3. Do I perform my own preoperative assessment, or do I mostly rely on documentation from admitting personnel in developing my plan of care?

4. Do I know the action, dose, side effects, and contraindications for the medications my patient is taking pre-procedure?
   □ Yes □ No

5. Do I know the action, dose, route, side effects, and contraindications for the medications that are administered during the intraoperative period?
   □ Yes □ No

6. Do I have access to central processing personnel and resources?
   □ Yes □ No

7. Do I participate in hand-offs to PACU nurses, or does someone else give report to the RN?

8. Is my facility current on Joint Commission, CMS, and other regulatory standards?
   □ Yes □ No

9. Are Association of periOperative Registered Nurses (AORN) standards and recommended practices cited in my facility’s policies and procedures?
   □ Yes □ No

10. Do I incorporate the most current AORN standards and recommended practices into my practice?
    □ Yes □ No

11. Are my facility’s policies and procedures updated to reflect current best practice?
    □ Yes □ No

12. Does my facility library/unit manager/educator have access to current reference and resource materials (e.g., *Perioperative Standards and Recommended Practices, Alexander’s Care of the Patient in Surgery, Berry and Kohn’s Operating Room Technique*, and/or *Competency for Safe Patient Care During Operative and Invasive Procedures*)?
   □ Yes □ No
Self-Assessment for the CNOR Exam

13. Have I provided myself with adequate time to study (typically 3 months) prior to taking the exam?
   □ Yes  □ No

14. Have I reviewed CCI’s handbook (found at cc-institute.org) to familiarize myself with the testing process?
   □ Yes  □ No

15. Do I have a mentor or resource person who understands the certification process?
   □ Yes  Person’s name: ____________________________  □ No
   Contact info: ____________________________

16. Does my facility have a CCI Champion? (go to cc-institute.org for a list of Champions)
   □ Yes  Champion’s name: ____________________________  □ No

17. I have identified and put a plan in place to address barriers to preparation for the exam:
   □ Cost of exam
   □ Cost of study materials
   □ Facility support/reward/Recognition
   □ Time
   □ Testing anxiety

Step Back

Critically analyze the results of your self-assessment. Numerous “no” answers, limited exposure to all components of perioperative nursing (pre-, intra-, and postoperative), and/or specialization to specific types of patients or procedures does not mean you cannot be successful on the exam, but it does suggest participating in additional learning opportunities to address identified deficits.
Learning Needs Assessment

The CNOR exam is based on the following domains, or major topics. The following tool can be used to evaluate your knowledge of items found on the CNOR examination. Together with the self-assessment, this tool provides a baseline for determining preparation needs. For each domain, score your current knowledge based on the following key:

1 — Very Certain: I know this content area well and believe that my work experiences have fully prepared me. I am comfortable with current practices and believe I am up-to-date with new developments and advances.

2 — Certain: I am reasonably comfortable with this content area and believe that my work experiences have prepared me fairly well.

3 — Undecided: I have some knowledge and some experience in this area, but there may be a few content areas where I am not as strong or for which my work experiences have not fully prepared me.

4 — Uncertain: I am aware that I have some knowledge deficits and/or a lack of work experience in this content area. I will need to engage in some study or other remediation to be comfortable with this content area.

5 — Very Uncertain: I am aware that I have many knowledge deficits and/or lack work experiences in this content area. This is an area of weakness for me and one that will require me to remediate before taking the examination.

Match the percentage of questions in the domain and the areas scored 3, 4, or 5 to help determine what content will need the most review.

<table>
<thead>
<tr>
<th>Domain</th>
<th>My level of competency</th>
<th>Percentage of questions on the exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preoperative Assessment and Diagnosis</td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>2. Identify Expected Outcomes and Develop an Individualized Plan of Care</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>3. Intraoperative Activities</td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>4. Communication</td>
<td></td>
<td>9%</td>
</tr>
<tr>
<td>5. Transfer of Care</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>6. Cleaning, Disinfecting, Packaging, Sterilizing, Transporting, and Storing Instruments and Supplies</td>
<td></td>
<td>12%</td>
</tr>
<tr>
<td>7. Emergency Situations</td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td>8. Management of Personnel, Services, and Materials</td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>9. Professional Accountability</td>
<td></td>
<td>6%</td>
</tr>
</tbody>
</table>
CHAPTER 1: Preoperative Patient Assessment and Diagnosis

Test Specifications:
14% of CNOR test questions are based on Preoperative Patient Assessment and Diagnosis.

Introduction

Patient assessment is the cornerstone of all nursing practice. It is the first item listed in the nursing process, and although perioperative nurses may conduct a more focused assessment than a med-surg or critical care nurse, the more information we gather, the better able we will be to identify special needs (diagnosis), determine our next steps (plan of care), and anticipate what we would like to happen (expected outcomes). The next two chapters provide opportunities to incorporate what we know about normal anatomy and physiology, age related factors, pathophysiology, and pharmacology to patients in common perioperative situations. A patient-centered approach is utilized for several reasons:

1. The Institute of Medicine has identified this as one of six needed health care competencies (IOM, 2001).

2. Utilizing a patient-centered approach helps keep the focus on patient care, rather than on what an individual nurse would do based on a facility’s polices and procedures.

Although check-lists and preference cards are useful in helping us organize and complete tasks in the OR, these tools are not as beneficial in developing a plan of care from the patient’s perspective. A concept or mind map (see sample on the following page) is an organizational tool that allows us to look at the connection between our patients’ needs and how we meet those needs. It also is a good reminder that events do not necessarily occur in order, and certainly not in isolation; multiple things can and do happen at the same time, and one event can have an impact on many other systems. The concept map will encourage us to view the big picture, ask questions about our patients, and allow us to appreciate the interrelatedness of data obtained from our patient assessment and our plan of care.

There is no one “correct” way to develop a concept map; the samples on the CD that came with this Guide are examples only and are to be used to help get you started.
free to develop your own map. It is more important to develop a tool that you can use and that makes sense to you than to strictly follow the examples. Although they may be arranged differently, you will find that the main components of your map will be the same as those found in the learning activities.

**Case Study**

To encourage continuity in learning activities between pre-, intra-, and postoperative patient care, a case study approach will be presented in Chapters 1, 2, 3, 5, and 8. Our imaginary patient will guide us through critical thinking exercises that can be applied to any patient, of any age, and for any procedure. Templates for forms are included on the CD for you to make multiple copies as you wish in developing your own plans of care.

The case study for this *Guide* is presented on the following two pages. Case study activities presented in this and later chapters appear in a box with an orange border as shown on the next page.
Case Study

Note: This case study will be used for activities in Chapters 1, 2, 3, 5, and 8.

Your first patient of the day is Mrs. M., who is scheduled for a laparoscopic cholecystectomy at 0730. You assist your scrub technologist in opening the room, and then go to AM Admissions to meet your patient. After reviewing Mrs. M.’s medical record and conducting your preoperative interview, you have obtained the following information:

Chief Complaint:
Cholecystitis, cholelithiasis
Nausea and vomiting (NV) and Right Upper Quadrant (RUQ) pain X 1 week; worsens after eating, especially with fatty foods. Ultrasound confirms diagnosis with report of multiple small stones in gall bladder.

Past Medical History:
Diabetes mellitus type II (Non-Insulin Dependent Diabetic Mellitus [NIDDM]), controlled with oral meds
Hypertensive, controlled with diuretic
Height 5’2”; 240 pounds. States “I know I should exercise, but it’s hard because my knees hurt so bad. Plus, I get so hot I think I’m going to faint.”
Surgeries: Carpal tunnel release right wrist, 2002, IV regional
Cesarean section X 2, 1980 and 1982, spinal anesthetic

Family History:
Father — deceased at age 56, myocardial infarction (MI)
Mother — living, fair health, diabetic and hypertensive
Brothers — X2, fair health, both are diabetic
Significant for maternal grandmother dying during surgery to remove gallbladder, 1954. Patient states “I’m really worried that the same thing is going to happen to me.”

Social:
Married, 3 children. Works as administrative assistant for CNO for large medical center. Smokes 1 pack per day (ppd) X 20 years. Drinks 1 glass of wine/day.

Allergies:
Penicillin (PCN) — hives, swelling of face and hands
Multiple fruits (strawberries, kiwi, bananas) — hives
Face broke out and became short of breath after last visit to dentist

Continued on following page.
Case Study, continued

Medications:
Glucophage — 500 mg twice a day
Hydrochlorothiazide — 25 mg every day
Multivitamin — 1 every day
Gingko Biloba — 60 mg every day
Naproxen — 220 mg twice a day
Took usual meds this morning with sip of water; otherwise has been NPO since midnight.

Physical Exam:
54-year-old woman in moderate distress. Abdomen soft, obese. Guards RUQ. Last emesis 2 hours ago; approximately “½ cup” (120 ml) of bile.
Vital signs
BP — 144/90 mmHg    T (TM) — 99.2° F
P — 50 bpm     R — 16/min
Pulse ox — 95% on room air

Diagnostic Tests and Lab Values:

<table>
<thead>
<tr>
<th>Test</th>
<th>Reference range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td></td>
</tr>
<tr>
<td>WBCs — 12,000/mm³</td>
<td>5,000-10,000/mm³</td>
</tr>
<tr>
<td>RBCs — 4.5 x 10¹²/mm³</td>
<td>4.2-5.4 x 10¹²/mm³</td>
</tr>
<tr>
<td>Hemoglobin — 15.4 g/dl</td>
<td>12.0-16.0 g/dl</td>
</tr>
<tr>
<td>Hematocrit — 44.0%</td>
<td>38-47%</td>
</tr>
<tr>
<td>HgbA1c — 8.1%</td>
<td>less than 7%</td>
</tr>
<tr>
<td>Na+ — 137 mEq/L</td>
<td>136-145 mEq/L</td>
</tr>
<tr>
<td>K+ — 3.0 mEq/L</td>
<td>3.5-5.0 mEq/L</td>
</tr>
<tr>
<td>CO₂ — 25 mEq/L</td>
<td>23-29 mEq/L</td>
</tr>
<tr>
<td>Cl⁻ — 101 mEq/L</td>
<td>98-107 mEq/L</td>
</tr>
<tr>
<td>Blood glucose — 102 mg/dl</td>
<td>74-100 mg/dl</td>
</tr>
<tr>
<td>Ca++ — 10.1 mg/dl</td>
<td>8.6-10.2 mg/dl</td>
</tr>
<tr>
<td>BUN — 17 mg/dl</td>
<td>8-23 mg/dl</td>
</tr>
<tr>
<td>Creatinine — 0.9 mg/dl</td>
<td>0.8-1.3 mg/dl</td>
</tr>
</tbody>
</table>

Patient has an IV in her left hand with Lactated Ringers 1,000 ml infusing at 125 ml/hour. She is wearing sequential compression stockings.
Module 1: Assess the Health Status of the Patient

Patient assessment requires collecting data from a variety of sources and incorporating that information with physical and psychosocial findings to develop nursing diagnoses, which will drive the plan of care. Thorough documentation of findings will help prevent duplication or omission of data.

Competency Outcomes

To successfully complete the activities in this module, you will need to be able to:

1. Differentiate normal from abnormal anatomy and physiology based on age-related factors.
2. Integrate components of relevant pathophysiological processes (concurrent disease processes, inflammatory/immune responses, etc.) into a surgical patient plan of care.
3. Collect, analyze, and prioritize patient data (allergies, lab values, EKG, arterial blood gas results, other medical conditions, previous relevant surgical history, NPO status) from a variety of sources (chart review, patient/family interview, consultation with other health care team members).
4. Conduct an individualized physical assessment.
5. Select nursing diagnoses based on data collected during the preoperative assessment period.
6. Demonstrate cultural competence in assessing needs for a diverse patient population.
7. Provide for continuity in patient care by documenting the preoperative assessment.

Recommended Readings

Perioperative Standards and Recommended Practices (2012), Section 1: Standards of perioperative nursing practice; Guidelines and guidance statements: Preoperative patient care in the ambulatory surgery setting; Recommended practices for minimally invasive surgery.

Alexander’s Care of the Patient in Surgery. (2011, 14th ed.), Chapter 1: Concepts basic to perioperative nursing; Unit II: Surgical interventions.

Berry and Kohn’s Operating Room Technique. (2013, 12th ed.), Chapter 2: Foundations of perioperative patient care standards; Chapter 7: The patient: The reason for your existence; Chapter 9: Perioperative geriatrics; Chapter 11: Ambulatory surgery centers and alternative surgical locations; Chapter 21: Preoperative preparation of the patient; Chapter 25: Coordinated roles of the scrub person and the circulating nurse.

Competency for Safe Patient Care During Operative and Invasive Procedures. (2009), Chapter 5: Preparation of the patient for the procedure.
**Key Words**

Age specific, assessment, diagnostic studies, laboratory results, nursing diagnosis, nursing process, patient education, *Perioperative Nursing Data Set* (PNDS), physical assessment, preoperative testing

**Patient Assessment**

*Importance of Assessment*

The first step in the nursing process, assessment, is performed throughout the patient’s entire health care experience. The initial assessment identifies baseline values through information provided by the patient, family and guardians, significant others, the medical record, lab work, and other health care providers. This information will be used to formulate perioperative nursing diagnoses and the patient’s plan of care, reinforcing the need to both obtain and accurately interpret data.

*Components of the Patient Assessment*

Rather than a head-to-toe or complete review of systems, perioperative nurses typically perform a more focused patient assessment based on data found in the history and physical and patient interview that are directly applicable to the proposed operative or invasive procedure.

*Documentation of Assessment Findings*

Whether electronic or paper, results of the assessment must be noted to ensure continuity of care. Many facilities have preprinted forms, which serve as excellent reminders of components that need to be included in the assessment and help to decrease errors or omissions in the assessment process. Although checklists and boxes are convenient and efficient, all records should have the capability of allowing the nurse to add additional information to reflect a patient’s individual needs, as this information is especially important in developing a plan of care. Patients may reveal important information to the nurse that they did not relay to other health care providers; this could affect the surgical procedure or the type of anesthesia planned. Documentation of the patient’s assessment should include findings of the focused exam and patient interview.

---

**Activity — Fill in the Blank**

1. Sources of data used in developing the plan of care include:

   ____________________________

   ____________________________

   ____________________________

   ____________________________

   ____________________________

2. Perioperative nurses are more likely to perform a

   ____________________________

   patient assessment.

3. The purpose of documenting assessment findings is to ensure

   ____________________________

   and should include results of

   ____________________________

   and

   ____________________________.
“Go To” Case Study Activity
Draw Your Own Concept Map

Go to the Concept Map file on the CD that came with this Guide. Following the instructions on the CD, and using the patient information on pages 35-36, begin drawing your concept map that organizes the data you will need to develop your surgical plan of care. The steps involved are repeated here for your convenience.

Put your patient’s name, preoperative diagnosis, and proposed procedure in the center of the map.

Make a list of all the data you feel you will need to address in your plan of care.

Identify Mrs. M.’s “major problems.” Some of these are typical for every surgery (e.g., infection, pain, anxiety), while others will be specific for Mrs. M. Eventually these will turn into nursing diagnoses; for now, just label them with whatever terms you’re comfortable using. Put each “major problem” into its own box.

Arrange the assessment data from your list under their corresponding “major problems” boxes. The same data may be used in multiple boxes.

What critical information needs to be communicated to the following health care team members?

- Anesthesia provider:

- Surgeon:

- Scrub person:

- PACU:
Activity — Matching

From the list of patient assessment data below, write the letter of its corresponding perioperative nursing intervention(s) on the right. (Note: some items will have multiple answers.)

**Assessment Data:**

Identification of patient ____  
Baseline vital signs (temperature, pulse, respirations, blood pressure, pulse oximetry reading, and pain assessment) ____  
Height and weight ____  
Known medical conditions ____  
Prescription and over-the-counter medications, supplements including herbal preparations taken on a routine basis, and last medication administration ____  
Allergies or sensitivities, including latex and food ____  
NPO status ____  
Previous surgical history, including asking about metal implants and untoward reactions to anesthesia ____  
Skin condition ____  
Level of consciousness ____  
Emotional status ____  
Risk for falling ____  
Any history of drug or alcohol abuse ____  
Smoking history (packs per day and pack years) ____  
Signs of physical or emotional abuse ____  
Diagnostic test results ____  
Diversity and cultural needs ____  
Knowledge deficits related to surgery/recovery ____

**Intervention:**

A. Positioning  
B. Patient education/communication  
C. Medication and solution administration  
D. Moving/transfer  
E. Infection prevention  
F. Adequate airway/oxygen exchange  
G. Maintenance of skin integrity  
H. Preventing wrong site, wrong patient, wrong procedure  
I. Normothermia  
J. Adequate tissue perfusion

“Go To” Activity — Skill Building

Spend a morning with the A.M. admission nurse in your facility. Observe interview and assessment techniques. How best can you effectively and efficiently integrate the information obtained in the preoperative area to your plan of care for the OR?
Module 2: Review of Preoperative Medications

Obtaining a detailed history of current medications and allergies is an excellent way to further understand a patient’s overall state of health. Evaluating current medication information serves multiple purposes. It identifies allergies; concurrent disease processes and the severity of the condition; the effectiveness of the drug in treating the condition; the patient’s knowledge of pharmacology related to his/her medications; and the history of compliance with a drug regimen (which may serve as a predictor for successfully following postoperative instructions). In addition, potential adverse effects and drug interactions between home, perioperative, and discharge medications can be identified early and thereby avoided.

Competency Outcomes

To successfully complete the activities in this module, you will need to be able to:

1. Reconcile current medications (preoperative medications, current prescription drugs, over-the-counter medications, alternative and herbal supplements, and medical marijuana) and alcohol and recreational drug consumption with patient’s condition and proposed surgical procedure.
2. Identify possible adverse effects of patient’s daily meds on the surgical procedure.

Additional Readings/Resources


Recommended Readings


*Competency for Safe Patient Care During Operative and Invasive Procedures.* (2009), Chapter 5: Preparation of the patient for the procedure; Chapter 12: Administer drugs and solutions.

Key Words

Complementary/alternative medicine (CAM), allergies, herbs, medication reconciliation, patient/family education, pharmacology, side effects

---

**Case Study Activity — Matching**

Match Mrs. M.’s current medications to their action from the list at the right.

- **Glucophage**
  - A. diuretic; inhibits sodium reabsorption
- **Hydrochlorothiazide**
  - B. nonsteroidal anti-inflammatory
- **Gingko Biloba**
  - C. decreases hepatic glucose production, increases insulin sensitivity
- **Naproxen**
  - D. memory enhancer (controversial)

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**Case Study Activity — Critical Thinking**

How does Mrs. M.’s allergy to penicillin affect the choice of prophylactic antibiotic?

Which of Mrs. M.’s home medications could influence the surgical procedure? Why?
Additional Readings/Resources


Module 3: Initiation of the Universal Protocol

The Universal Protocol was initiated by The Joint Commission to prevent wrong site, wrong procedure, and wrong person surgery. A standardized checklist that is consistently initiated and followed has been found to help decrease surgical errors.

Competency Outcomes

To successfully complete the activities in this module, you will need to be able to:

1. Apply components of the Universal Protocol.
2. Identify AORN standards and recommended practices that help to prevent adverse outcomes.

Recommended Readings


*Competency for Safe Patient Care During Operative and Invasive Procedures.* (2009), Chapter 6: Transfer the patient.

Key Words

The Joint Commission (TJC), preoperative verification, site marking, wrong site, wrong procedure, wrong person
Activity — Fill in the Blank

Preoperative verification to prevent wrong _________________, _________________, or _________________ includes ensuring that all relevant documents are available prior to the procedure.

What documents can be used to verify the patient’s procedure?

__________________________________  ___________________________

__________________________________  ___________________________

__________________________________  ___________________________

What components of the Universal Protocol are incorporated in the preoperative area?

1. _____________________________________________________________________

2. _____________________________________________________________________

Activity — Critical Thinking

For the following never events, identify the corresponding AORN standard or recommended practices that address it. There may be multiple correct answers.    Answer:

1. Surgery performed on the wrong body part, the wrong patient, or the wrong procedure.

2. Unintended retention of a foreign object in a patient after surgery or other procedure.

3. Patient death or serious disability associated with a medication error.

4. Patient death or serious disability associated with a burn incurred from any source.

5. Hospital acquired pressure ulcers.


7. Hospital acquired surgical site infections.
Activity — Mark the Site

Based on The Joint Commission guidelines, mark the torso illustration for a right inguinal hernia repair.

Additional Readings/Resources


Module 4: Obtaining Surgical Consent

Informed consent is a contract between the patient and the health care practitioner providing the operation or invasive procedure. The reason for the procedure and its risks, benefits, complications, and alternatives must be explained in terms the patient can understand. The consent serves as one of the major documents on which the perioperative nurse relies when developing a plan of care.

Competency Outcomes

To successfully complete the activities in this module, you will need to be able to:

1. Identify components of a surgical consent.
2. Define “informed consent.”
3. Outline steps for obtaining consent.

Recommended Readings

Case Study Activity — Consent

Mrs. M.’s consent states that she is scheduled for a laparoscopic cholecystectomy, possible open, with cholangiograms.

1. How will you evaluate Mrs. M.’s understanding of the proposed procedure?

2. What puts Mrs. M. at risk for converting to an open procedure?
Patients undergoing an operative or invasive procedure have the same rights in determining the course of their care as any other patient. Clear communication between the patient and the surgical team is even more important, as the nature of the care provided during a procedure may mimic a resuscitative event.

**Competency Outcomes**

To successfully complete the activities in this module, you will need to be able to:

1. Define the terms “advance directive” and “do-not-resuscitate (DNR).”
2. Describe ramifications of a DNR for a surgical patient.
3. Describe methods for confirming advance directive status or DNR status.

**Additional Readings/Resources**


**Module 5: Ensuring Patients’ Rights By Providing Information on Advance Directives, Do-Not-Resuscitate**

Patients undergoing an operative or invasive procedure have the same rights in determining the course of their care as any other patient. Clear communication between the patient and the surgical team is even more important, as the nature of the care provided during a procedure may mimic a resuscitative event.
Recommended Readings


*Berry and Kohn’s Operating Room Technique.* (2013, 12th ed.), Chapter 3: Legal, regulatory, and ethical issues.

Key Words

Advance directive, do-not-resuscitate (DNR), Patient Self-Determination Act (PSDA)

Activity — True or False?

Under the Patient Self-Determination Act, patients have the legal right to accept or refuse medical treatment, including resuscitation, even if refusal will likely result in death.

TRUE ___ FALSE ___

“Go To” Activity — Check It Out!

Go to Question #8, Patient rights and DNR, under the Perioperative question of the week tab on your CD for an additional critical-thinking question.

“Go To” Activity — Skill Building

What is your facility’s policy on DNR for surgical patients? Do you have a separate form that must be filled out? If so, how many of the following choices does it include?

- suspension of DNR orders.
- continuation of DNR orders.
- limited resuscitation with procedure-directed orders.
- limited resuscitation with goal-directed orders.

Module 6: Pain Assessment

The importance of pain assessment is reflected by the fact that it is now being considered the “fifth vital sign.” An initial baseline pain assessment obtained preoperatively is necessary as signs and symptoms of both acute and chronic pain may be masked by the medications given during the intraoperative period.
Competency Outcomes

To successfully complete the activities in this module, you will need to be able to:

1. Assess a patient for signs and symptoms of pain, taking into account variations related to age, gender, and culture.
2. Utilize a pain-rating scale in assessing a patient’s level of pain.
3. Incorporate pain-relief interventions into a plan of care.

Recommended Readings

Alexander’s Care of the Patient in Surgery. (2011, 14th ed.), Chapter 4: Anesthesia; Chapter 9: Postoperative patient care and pain management; Chapter 25: Pediatric surgery; Chapter 26: Geriatric surgery; Chapter 29: Integrated health practices: Complementary and alternative therapies.

Berry and Kohn’s Operating Room Technique. (2013, 12th ed.), Chapter 8: Perioperative pediatrics; Chapter 30: Postoperative patient care.

Competency for Safe Patient Care During Operative and Invasive Procedures. (2009), Chapter 18: Facilitate care after the procedure; Chapter 36: Clinical aspects of operative pain.

Key Words

Analgesia, narcotics, non-steroidal anti-inflammatories (NSAIDS), nonpharmacologic interventions, opioids, pain assessment, pain block, pain intensity scales, patient-controlled analgesia (PCA), pharmacology, regional anesthesia, self-report, signs, symptoms, The Joint Commission (TJC)

Activity — Matching

Match the most appropriate pain rating scale to the patient described below. (Answers may be used more than once.)

3-year-old girl______  A. 0-10 Numeric pain intensity scale
45-year-old man _____  B. FACES Pain rating scale
23-year-old woman who does not speak English _____  C. Simple descriptive pain intensity scale
**Case Study Activity — Pain Assessment**

How can you incorporate components of Mrs. M.'s age, sex, ethnicity, and culture into her pain management plan? (Note: This same format may be utilized when developing any patient’s pain treatment plan.)

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**Additional Readings/Resources**


Note: This article provides a nice description of another pain rating tool, FLACC (Face, Legs, Activity, Cry, Consolability).

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**Module 7: Development of Nursing Diagnoses**

A nursing diagnosis sorts assessment data into real or potential patient problems. Standardized terminology is used to “label” the problem, which enhances clear communication and documentation among members of the health care team. Nursing interventions specific to each diagnosis are then identified. Experience level determines the speed with which a practitioner moves through these steps.

**Competency Outcomes**

To successfully complete the activities in this module, you will need to be able to:

1. Identify common perioperative nursing diagnoses.
2. Formulate nursing diagnoses that are consistent with the patient’s assessment data.
## Recommended Readings

*Alexander’s Care of the Patient in Surgery.* (2011, 14th ed.), Chapter 1: Concepts basic to perioperative nursing.


*Competency for Safe Patient Care During Operative and Invasive Procedures.* (2009), Chapter 2: Competency assessment.

## Key Words

Diagnosis, medical diagnosis, nursing diagnosis, nursing process, *Perioperative Nursing Data Set* (PNDS)

## Frequently Used Nursing Diagnoses

- Acute pain
- Anxiety
- Chronic pain
- Deficient knowledge
- Fear
- Hyperthermia
- Imbalanced nutrition
- Hypothermia
- Impaired gas exchange
- Impaired transfer ability
- Ineffective breathing pattern
- Ineffective health maintenance
- Nausea
- Risk for aspiration
- Risk for deficient fluid volume
- Risk for electrolyte imbalance
- Risk for imbalanced body temperature
- Risk for imbalanced fluid volume
- Risk for impaired skin integrity
- Risk for infection
- Risk for injury
- Risk for latex allergy response
- Risk for peripheral neurovascular dysfunction
- Risk for perioperative positioning injury


## “Go To” Case Study Activity — Nursing Diagnoses

From your interpretation of Mrs. M.’s assessment data, formulate nursing diagnoses to address each identified problem or potential problem. Write your nursing diagnoses in the boxes next to your “major problem” in your concept map on the CD. Not all of your “major problems” may have a corresponding nursing diagnosis.
Activity — Matching

Match the term with its definition.

Etiology ____

Nursing diagnosis ____

Nursing intervention ____

Problem ____

Sign ____

Symptom ____

A. Objective information obtained through the five senses

B. Cause of a disease supported by medical data

C. Subjective information obtained through what the patient tells you

D. Actions for which the perioperative nurse is accountable

E. Any condition that requires a nursing intervention

F. Identification of a real or potential patient problem or risk

Chapter Summary

The perioperative nurse’s assessment of the surgical patient and formulation of nursing diagnoses are critical components of safe, efficient patient care. This information serves as the focal point for mapping the patient’s perioperative experience.

Glossary

Advance directive — Legal document that allows the patient to provide instruction ahead of time on end-of-life care.

AORN standards and recommended practices — This term includes all sections of the Perioperative Standards and Recommended Practices published annually by AORN. The most current edition should be used at all times.

Assessment — Collecting data about a patient to determine the appropriate nursing diagnoses and expected outcomes. This includes patient’s history and physical, vital signs, all aspects of presenting condition, and results of diagnostic tests. Assessment begins with data collection and ends with the formulation of nursing diagnoses. Assessment is ongoing during the perioperative period (i.e., includes preoperative, intraoperative, postoperative periods).
Association of periOperative Registered Nurses (AORN) — AORN is the professional organization of perioperative registered nurses that supports registered nurses in achieving optimal outcomes for patients undergoing operative and other invasive procedures. (www.aorn.org)

Community resources — Other agencies that the perioperative nurse may refer patients to for special needs (e.g., American Cancer Society, American Heart Association, home health care agencies, social services, organ procurement agencies).

Continuum of care — Care of patients undergoing operative or other invasive procedures from the time the decision to undergo surgery is made, through the intraoperative period, and for an undetermined postoperative period until the patient’s health status is improved or a specified health goal is reached.

Cultural diversity — Variances in beliefs, actions, customs, and values between racial, ethnic, religious, or social groups.

Discharge planning — The process of assessing the needs of patients for postprocedure care; developing a coordinated and multidisciplinary plan to provide the care required (including patient and family education, available services, and referral agencies and support groups); and evaluating the plan. The process begins before or on admission to the health care facility.

Documentation — The written record of nursing care including patient assessment, the actions taken as a result of that assessment, the plan of care developed and implemented, and the results of those actions. Documentation serves as the main, retrievable communication tool for the health care team.

Family — For purposes of this guide, significant others and extended family are included in the term “family.”

Health literacy — An integral part of patient identification; the ability to read, understand, and follow instructions related to treatment.

Healthcare Insurance Portability and Accountability Act (HIPAA) — Legislation passed in 1996 that addresses various aspects of the use of patients’ medical information, including confidentiality of patient information in the medical record, consent processes for access to patients’ health information, and the right to sue the health plan provider.

Informed consent — The patient’s right to make his or her own informed decisions based on information regarding treatment options, including the benefits, expected outcomes, risks, and potential complications; right to refuse treatment; and decisions regarding participation in research studies.

Interdisciplinary teams — Pharmacy, radiology, blood bank, laboratories, environmental
services (i.e., housekeeping), biomedical engineering, etc.

Intervention (nursing) — Action taken based on patient assessment data with the intention of achieving one or more expected patient outcomes.

The Joint Commission — The independent accrediting organization that designates acceptable patient care and evaluates health care facilities’ abilities to adhere to specific guidelines (e.g., documentation, processes, policies, and procedures). (www.jointcommission.org)

Medical diagnosis — A disease-based determination of a condition by a physician based on a review of patient signs and symptoms and diagnostic tests.

North American Nursing Diagnosis Association (NANDA) — The group that has developed a list of 155 accepted nursing diagnoses to ensure that documentation in all areas of nursing uses consistent, comparable terminology. (www.nanda.org) Also see Perioperative Nursing Data Set.

Nursing diagnosis — A statement derived by the registered nurse from evaluating the patient’s responses to actual or potential problems/conditions. The nursing diagnosis provides the framework for nursing interventions which, when implemented, will enable the patient to attain specific desired outcomes. It is structured using standardized nursing nomenclature. Also see North American Nursing Diagnosis Association and Perioperative Nursing Data Set.

Nursing process — The critical thinking a nurse uses to assess the health status of patients, identify problems, develop and implement plans of care, and evaluate the patients’ responses to that care.

Outcome criteria — Statements developed to identify the tasks or conditions to be implemented that will assist the patient in achieving the desired outcomes. Outcome criteria indicate an expected, measurable change in the patient’s health status.

Patients’ rights — Every patient has the right to seek and receive health care regardless of his or her race, religion, or culture and with respect for the individual’s self-image, privacy, and other such considerations, in accordance with the Patients’ Bill of Rights.

Perioperative period — Time commencing with the decision for surgical intervention and ending with a follow-up home/clinic evaluation. This period includes the preoperative, intraoperative, and postoperative phases.

Plan of care (or care plan) — A result of a systematic process of identifying expected patient outcomes and determining how to achieve them. It includes the list of interventions necessary to reach the expected outcome. The plan of care directs all nursing care activities related to each patient.
Perioperative Nursing Data Set (PNDS) — The perioperative nursing vocabulary guidebook that provides nursing diagnosis, nursing interventions, and patient outcomes statements specific to the perioperative environment.

Postoperative phase — Begins with admission to the postanesthesia care area and ends with the resolution of surgical sequelae.

Preoperative phase — Begins when the decision for surgical intervention is made and ends with the transfer of the patient to the operating room bed.

Regulatory standards — Federal, state, and local laws and regulations that govern practice.

Safe environment — The setting in which the physical and psychological aspects of the environment are controlled for the purpose of presenting the least possible hazard to the patient, staff members, and community.

Surgical intervention — The patient’s experiences during the preoperative, intraoperative, and postoperative phases, including the technical aspects and anatomical approach.

Surgical procedure — The technical aspects and anatomical approach used during surgical intervention.

Teaching and learning theories and techniques — Those aids and methods that facilitate learning (e.g., audiovisual tools, return demonstration, and adult learning principles).

Time-out — As an integral component of The Joint Commission’s Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery, a time-out surgical site verification must be conducted in the location where the procedure will be done, just before starting the procedure and, if possible, include active participation of the patient. It must involve the entire operative team, use active communication, be documented, and must include, at the least:

- Correct patient identity
- Correct side and site
- Agreement on the procedure to be done
- Correct patient position
- Availability of correct implants and any special equipment
Module 1: Assess the health status of the patient — Pages 37-41

Activity — Fill in the Blank

1. Sources of data used in developing the plan of care include patient, family, guardians, significant others, the medical record, lab work, and other health care providers.

2. Perioperative nurses are more likely to perform a focused patient assessment.

3. The purpose of documenting assessment findings is to ensure continuity of patient care and should include results of physical exam and patient interview.

References


Case Study Activity — Draw Your Own Concept Map

Make a list of all the data you feel you will need to address in your plan of care.

Assessment data to be used in development of plan of care:

- Ultrasound shows multiple small stones
- Elevated temperature (99.2° F, 37.3° C)
- Elevated WBCs
- Pain
- Decreased mobility due to knee pain
- Nausea, vomiting
- EKG shows u wave, flattened T wave
- Potassium 3.0
- Diuretic
- Increased weight
- Surgical procedure; unexplained family death during surgery
- Smokes 1 pack per day
- Allergic to penicillin
- Food allergies (fruit)
- Fasting blood glucose 102 mg/dL; HgbA1C 8.2%
- Blood pressure 144/90 mmHg
- “Gets hot” when exercises
- Face “breaks out” at dentist

From the patient information noted above, begin drawing your concept map (on the CD) that identifies the data you will need to use in developing your surgical plan of care. Put your patient’s name, preoperative diagnosis, and proposed procedure in the center of the map.

See concept maps on the following pages for answers to the following related questions.

- Identify Mrs. M.’s “major problems,” putting each into its own box.
- Arrange the data under their corresponding “major problems.”

What critical information needs to be communicated to the following health care team members?

Anesthesia provider: Low K+, risk for MH, allergy to PCN, possible latex allergy, has been NPO and took Glucophage this am

Surgeon: Low K+, risk for MH, possible latex allergy, possible adverse drug reaction between Glucophage and contrast medium

Scrub person: Need for longer instrumentation, possible latex allergy

PACU: Allergy to PCN, risk for MH, possible latex allergy
SAMPLE Concept Map showing Mrs. M.'s major problems.

- Major problem: Electrolyte imbalance
- Major problem: Diabetes
- Major problem: Hypertension
- Major problem: Infection

Mrs. M
Cholecystitis
Cholelithiasis
Lap chole poss open
Cholangiograms
Case Study Activity — Draw Your Own Concept Map, continued

SAMPLE Concept Map showing the assessment data needed to develop a plan of care for Mrs. M.

- **Major problem: Electrolyte imbalance**
  - Assessment data: K+ is 3.0; EKG shows changes consistent with hypokalemia. Patient is taking hydrochlorothiazide and is vomiting, both of which can affect electrolyte balance.

- **Major problem: Diabetes**
  - Assessment data: elevated BS and A1c; medication

Mrs. M
- Cholecystitis
- Cholelithiasis
- Lap chole poss open
- Cholangiograms

- **Major problem: Hypertension**
  - Assessment data: BP elevated even with medication. Smokes 1 ppd (vasoconstrictor). Overweight.

- **Major problem: Infection**
  - Assessment data: Smokes; obese; diabetic; elevated WBC’s; Elevated temp; temp changes in OR (hypothermia, prepping, exposure)
### Activity — Matching

From the list of patient assessment data below, write the letter of its corresponding perioperative nursing intervention(s) on the right.

**Assessment Data:**

<table>
<thead>
<tr>
<th>Identification of patient:</th>
<th>C, H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline vital signs (temperature, pulse, respirations, blood pressure, pulse oximetry reading, and pain assessment):</td>
<td>E, F, I, J</td>
</tr>
<tr>
<td>Height and weight:</td>
<td>A, C, D, E, G</td>
</tr>
<tr>
<td>Known medical conditions:</td>
<td>A, B, C, D, E, F, G, I, J</td>
</tr>
<tr>
<td>Prescription and over-the-counter medications, supplements including herbal preparations taken on a routine basis, and last medication administration:</td>
<td>B, C, J</td>
</tr>
<tr>
<td>Allergies or sensitivities, including latex and food:</td>
<td>B, C, F, J</td>
</tr>
<tr>
<td>NPO status:</td>
<td>B, F</td>
</tr>
<tr>
<td>Previous surgical history, including asking about metal implants and untoward reactions to anesthesia:</td>
<td>A, B, C, D, E, F, G, H, I, J</td>
</tr>
<tr>
<td>Skin condition:</td>
<td>A, B, C, D, E, G, J</td>
</tr>
<tr>
<td>Level of consciousness:</td>
<td>B, D, F, H</td>
</tr>
<tr>
<td>Emotional status:</td>
<td>B, C, H</td>
</tr>
<tr>
<td>Risk for falling:</td>
<td>B, C, D</td>
</tr>
<tr>
<td>Any history of drug or alcohol abuse:</td>
<td>B, C, E</td>
</tr>
<tr>
<td>Smoking history (packs per day and pack years):</td>
<td>B, E, F</td>
</tr>
<tr>
<td>Signs of physical or emotional abuse:</td>
<td>B, G</td>
</tr>
<tr>
<td>Diagnostic test results:</td>
<td>A, B, C, E, F, G, J</td>
</tr>
<tr>
<td>Diversity and cultural needs:</td>
<td>B, H</td>
</tr>
<tr>
<td>Knowledge deficits related to surgery/recovery:</td>
<td>B, E, H</td>
</tr>
</tbody>
</table>

**Interventions:**

| A. Positioning |
| B. Patient education/communication |
| C. Medication and solution administration |
| D. Moving/transfer |
| E. Infection prevention |
| F. Adequate airway/oxygen exchange |
| G. Maintenance of skin integrity |
| H. Preventing wrong site, wrong patient, wrong procedure |
| I. Normothermia |
| J. Adequate tissue perfusion |

Module 2: Review of preoperative medications — Pages 41-43

Case Study Activity — Matching

Match Mrs. M’s current medications to their action:

- Glucophage:  **C**  
  A. diuretic; inhibits sodium reabsorption

- Hydrochlorothiazide:  **A**  
  B. Nonsteroidal anti-inflammatory

- Gingko Biloba:  **D**  
  C. decreases hepatic glucose production, increases insulin sensitivity

- Naproxen:  **B**  
  D. memory enhancer (controversial)


Case Study Activity — Critical Thinking

How does Mrs. M’s allergy to penicillin affect the choice of prophylactic antibiotic?

*Cefazolin, the drug of choice for preoperative prophylaxis as recommended by the Surgical Care Improvement Project (SCIP) initiative, should be used with caution in patients allergic to penicillin. The anesthesiologist should be consulted prior to administration of this drug.*


Which of Mrs. M.’s medications could influence the surgical procedure? Why?

*Mrs. M. is taking both a nonsteroidal anti-inflammatory and gingko biloba. Taken together, these two drugs increase the risk for bleeding.*


*Mrs. M. ’s diuretic puts her at risk for electrolyte imbalance, specifically potassium. Potassium regulates skeletal and cardiac muscle contraction and nerve impulses.*


*Mrs. M. has been NPO, yet took her Glucophage this am, putting her at risk for hypoglycemia.*
Module 3: Initiation of the Universal Protocol — Pages 43-45

Activity — Fill in the Blank

Preoperative verification to prevent wrong patient, site, or procedure includes ensuring that all relevant documents are available prior to the procedure.

What documents can be used to verify the patient’s procedure?

The history and physical, surgical consent, laboratory values, blood transfusion consent, anesthesia consent, imaging studies.


What components of the Universal Protocol need to be incorporated in the preoperative area?

1. Verification of patient using two identifiers
2. Marking the operative site


Activity — Critical Thinking

For the following “never events,” identify the corresponding AORN standard, recommended practice, guideline, or position statement that addresses it.

1. Surgery performed on the wrong body part, the wrong patient, or the wrong procedure
   Position statement on preventing wrong-patient, wrong-site, wrong-procedure events

2. Unintended retention of a foreign object in a patient after surgery or other procedure
   Recommended practices: Prevention of retained surgical items

3. Patient death or serious disability associated with a medication error
   Recommended practices: Medication safety

4. Patient death or serious disability associated with a burn incurred from any source
   Recommended practices: Laser safety, Electrosurgery, Preoperative patient skin antisepsis

5. Hospital acquired pressure ulcer
   Recommended practices: Positioning the patient

6. Deep vein thrombosis
   Recommended practices: Prevention of deep vein thrombosis
Chapter 1: Preoperative Patient Assessment and Diagnosis

7. Hospital acquired surgical site infections

Recommended practices: Surgical attire, Hand hygiene, Maintaining a sterile field, Traffic patterns, Environmental cleaning, Prevention of transmissible infections, Prevention of hypothermia, Preoperative patient skin antisepsis, Sterilization and Disinfection; Guidelines: Reuse of single-use devices


Activity — Mark the Site

Based on The Joint Commission guidelines, mark the illustration for a right inguinal hernia repair (open).

* A line, initials, or “yes” are all acceptable, and should be drawn in right inguinal (lower right quadrant) area.


Module 4: Obtaining surgical consent — Pages 45-47

Activity — Fill in the Blank

The surgeon or practitioner performing the procedure is responsible for informing the patient about the proposed procedure in terms that he or she can understand.

It is the surgeon’s or practitioner’s responsibility to obtain informed consent.


Activity — Critical Thinking

How does obtaining surgical consent for a child differ from that of an adult?

* The person legally responsible for the child, rather than the patient, agrees to the procedure after being informed of the risks, benefits, and alternatives of the proposed procedure. Unless emancipated, a child under the age of 18 cannot sign his/her own consent. Children should be included in the discussion, and preoperative teaching should take into account age-specific needs and the extent the patient is able to understand and participate in the decision-making process. Both legal guardian and patient should have the opportunity to have questions answered.

Case Study Activity — Consent

Mrs. M.s’ consent states that she is scheduled for a laparoscopic cholecystectomy, possible open, with cholangiograms.

1. How will you evaluate Mrs. M.’s understanding of the proposed procedure?

*Ask open-ended questions to avoid leading Mrs. M. to a correct response. Have her describe in her own words the procedure and what it is for. Questions related to risks, alternatives, benefits, or other medical-related questions should be referred to the surgeon.*


2. What puts Mrs. M. at risk for converting to an open procedure?

*Her weight and previous abdominal surgeries*


Module 5: Ensuring patients’ rights by providing information on advance directives, do-not-resuscitate — Pages 47-48

Activity — True or False

Under the Patient Self-Determination Act, patients have the legal right to accept or refuse medical treatment, including resuscitation, even if refusal will likely result in death.

*True: Under the Patient Self-Determination Act, patients have the legal right to accept or refuse medical treatment, including resuscitation, even if refusal will likely result in death.*


Module 6: Pain assessment — Pages 48-50

Activity — Matching

Match the most appropriate pain rating scale to the patient identified below (answers may be used more than once)

3-year-old: *B*  
45-year-old man: *A, C*  
23-year-old woman, does not speak English: *B*

A. 0-10 Numeric pain intensity scale  
B. FACES Pain rating scale  
C. Simple descriptive pain intensity scale
Case Study Activity — Pain Assessment

How can you incorporate components of Mrs. M.’s age, sex, ethnicity, and culture into her pain management plan? (Note: This same format may be utilized when developing any patient’s pain treatment plan.)

A good rule of thumb is to treat the patient the way she would want to be treated. A baseline pain level should be determined against which postoperative pain can then be measured. Chronic pain should be considered in the pain management plan.

Mrs. M.’s previous experiences with surgical pain and what was effective in alleviating it should be included in the plan of care. A self-report tool should be agreed upon and communicated to other health care workers. Mrs. M. should determine the acceptable level of pain, and interventions should be directed toward reaching that level.

Preoperative teaching will help Mrs. M. understand what type of pain to expect, what will be done to treat it (both pharmacologic and nonpharmacologic interventions) and her role in participating in pain management. Her family should be included in this discussion as appropriate.

Module 7: Development of nursing diagnoses — Pages 50-52

Activity — Matching

Match the term to its correct definition:

Etiology: B
Nursing diagnosis: F
Nursing intervention: D
Problem: E
Sign: A
Symptom: C

A. Objective information obtained through the five senses
B. Cause of a disease supported by medical data
C. Subjective information obtained through what the patient tells you
D. Actions for which the perioperative nurse is accountable
E. Any condition that requires a nursing intervention
F. Identification of a real or potential patient problem or risk

Case Study Activity — Nursing Diagnoses

From your interpretation of Mrs. M.’s assessment data, formulate nursing diagnoses to address each identified problem or potential problem. Write your nursing diagnoses in the boxes next to your “major problem” in your concept map on the CD. Not all of your “major problems” may have a corresponding nursing diagnosis. Sample answers added to the map below.