

## **NCLEX and EXIT EXAM TESTING STRATEGIES AND INFORMATION**

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**These strategies will help you succeed on the Exit and NCLEX Exams**

### **Bloom's Taxonomy**

**Before learning specific strategies, you must understand how NCLEX-PN questions are created. NCLEX questions are written at certain levels of cognitive learning.** In order to best understand the types of questions you will face on the NCLEX-PN, you should be familiar with Bloom's Taxonomy. Bloom's Taxonomy divides educational objectives into three areas: cognitive (knowledge), affective (attitude), and psychomotor (skills). The cognitive area is further divided into hierarchical levels of knowledge, with levels at the top requiring more advanced critical thinking skills than those at the bottom. The following figure describes the cognitive area of Bloom's Taxonomy in terms of hierarchy.

#### **Bloom's Hierarchy of Learning Model**

##### **Creation**

The ability to use old information to create new

##### **Knowledge**

The ability to recall information

##### **Understanding**

The ability to explain information

##### **Application**

The ability to use information in another situation

##### **Analysis**

The ability to organize information and find hidden meanings

##### **Evaluation**

The ability to assess value and make choices

**Most NCLEX-PN questions are written at the application, analysis, evaluation, and creation levels of cognition. In nursing school, most questions are written at the knowledge and understanding levels of cognitive ability to test your memory and comprehension of the material.** The NCLEX-PN will test your ability to *apply* the material and put it all together within the scope of nursing practice.

### **Selecting an Answer Choice**

**Since most NCLEX-PN questions are written at the higher levels of cognition, it is rare that you will be able to predict an answer choice. Predicting answers means that once you have read the question, you can think of the correct answer on your own without reading the given answer choices.** Predicting answers is a very helpful method when test questions are written at the knowledge and comprehension levels of Bloom's Taxonomy, and you likely used prediction a great deal when you were in nursing school. For example, see if you can predict an answer for the following question. Place your hand over the answer choices to hide them while you read the question, and try to come up with the answer yourself.

#### **QUESTION:**

In a woman with a normal BMI and a normal pregnancy, the Institute of Medicine's recommended weight gain during pregnancy is

Now, look at the answer choices below. Do you see your answer?

#### **ANSWER CHOICES:**

1. 7.0 kg to 11.5 kg (15 lbs to 25 lbs).
2. 12.5 kg to 18 kg (28 lbs to 40 lbs).

3. 11.5 kg to 16 kg (25 lbs to 30 lbs).
4. greater than or equal to 7 kg (greater than or equal to 15 lbs).

When you read the question, you used recall to bring up your knowledge of recommended weight gain during pregnancy. Without looking at the answers, you probably remembered that for a woman with a normal BMI, the recommended weight gain is 25 to 30 lbs. Then, scanning the answer choices, you saw your expected answer and felt you must be correct because it is listed there. You selected choice 3 and moved on! It is very likely that you did not read the other answer choices carefully—or even at all. Predicting answers works wonderfully on questions written at the lower levels of cognition because if you predict an answer and then see it listed as a choice, you can feel very certain of your answer selection. However, if you are performing well on your NCLEX-PN, you won't see many questions written at that same cognitive level. **Since most NCLEX-PN questions are written at the application level and higher levels of cognition, predicting answers is *not* a good strategy to use in selecting answer choices. Poor test takers of the NCLEX-PN will predict answers but then become confused when they do not see their predictions listed in the choices.** The best NCLEX-PN test takers understand that predicting answers is not helpful on this level of question. They will instead carefully read the question and all of the answer choices before beginning to eliminate wrong answers. This is the way to succeed on the NCLEX-PN! ***Do not fall into the trap of predicting answers on the NCLEX-PN.***

**There is a temptation to select what you believe is the correct answer when you see it jump out at you from the answer choices. Don't do it! Make sure you carefully consider each answer choice.**

You may be surprised at how often the choice that jumps out at you is wrong. (There is only one time when we suggest you do predict an answer choice, and we will cover this situation later in the section on using visualization.) The following question is a great example of why it is important to eliminate answer choices rather than trying to predict the answer choice. Give it a try.

QUESTION:

When doing a physical assessment of a 17-year-old primigravida who is at 30 weeks of gestation, a nurse should expect which finding is related to mild preeclampsia?

ANSWER CHOICES:

1. Epigastric discomfort
2. Trace proteinuria
3. Dyspnea
4. Blood pressure of 150/100 mm Hg

**If you try to predict the answer, you could easily choose incorrectly.** When you see preeclampsia mentioned in the question, you will probably immediately think of high blood pressure (which is a primary symptom of preeclampsia), **see it jump out at you from choice 4, and select that answer choice as correct. Unfortunately, choice 4 is a wrong answer choice.** Instead, work your way through each choice and make eliminations. Once you have read all four choices carefully, you will realize they are all findings related to preeclampsia. So, how do you decide which is correct? Reread the question and look for more information. The question is asking about *mild* preeclampsia. Choices 1, 3, and 4 would all occur in severe preeclampsia and thus can be eliminated as answer choices. Only choice 2 is related to mild preeclampsia and is correct.

**But every answer choice is correct!**

On the NCLEX-PN, you will frequently find yourself choosing from four answers that you believe are all correct. This frustrating situation arises from the fact that on the NCLEX-PN, you frequently need to choose the *best* answer choice from the four you are given. Not all of the wrong choices will seem wrong or even *be* wrong within the scope of nursing practice—they just may not be the best answer, which is what the question is asking.

**This is where your practice of eliminating answer choices will really pay off. Be assured that only one answer is deemed correct by the writers of the test—because it is the best answer.** The NCLEX-PN requires that the correct answers are substantiated in at least two pieces of nursing literature, one of which must be a commonly used textbook. (The other may be a second textbook or a peer-reviewed research journal.) The writers are not

trying to trick you. If more than one answer choice seems correct, make sure you think carefully and take your time to determine which is best. *There is always a good reason for why the wrong answer choices are wrong.*

### Now none of the answer choices are correct!

Conversely, you may also face a question in which you do not see the answer you expect, and all of the choices seem wrong. However, the right answer is there. Again, you must go through each choice and eliminate the wrong choices until you have narrowed it down to the correct answer. Within this section on strategies, we will discuss a variety of ways to eliminate answer choices depending on which sort of question you face. We will address some of the common question types and categories and how to best eliminate answers for each.

## Strategies for Major Question Types

### Prioritization

If you see the words “most,” “first,” “best,” and “initial” in a question, it means you must establish priorities. You are looking at a prioritization question. In this type of question, there may be more than one right answer, but you are looking for the answer with the highest priority. Here is an example of a prioritization question:

#### QUESTION:

A nurse responds to the cardiac monitor alarm of a patient and observes that the patient has atrial flutter. The patient is sitting up in bed and is responsive. Which of the following actions should the nurse take first?

#### ANSWER CHOICES:

1. Institute carotid sinus massage.
2. Assess the patient for dyspnea.
3. Initiate cardiopulmonary resuscitation for the patient.
4. Place the patient in the Trendelenburg position.

In this example, the correct answer is choice 2. Let’s discuss how to use a strategy when faced with prioritization questions. In examining questions that require you to prioritize care, there are three important things to remember: the nursing process, Maslow’s hierarchy of needs, and the ABCs (airway, breathing, and circulation). These concepts will guide you in eliminating answer choices and help you to consistently arrive at the correct answer. A mnemonic to remember how to address priority questions is PHAN Priority – Hierachy – ABC’s – NURSING PROCESS.

### The Nursing Process (Always ASSESS before you ACT)

You were probably drilled on the nursing process during nursing school: **assess, analyze, plan, implement, and evaluate.** Now is the time to put it into practice! The NCLEX-PN is all about prioritizing and making decisions regarding care. The nursing process is important as you face prioritization questions. When you see a question regarding care that includes both assessments and implementations in the answer choices, ask yourself, “Is there enough information given to take action?” If there is not, you must assess first! Remember that LPNs assist the RN with assessment. In the sample question given in the section on prioritization, three of the answer choices were implementations (1, 3, and 4). Only answer choice 2 involved assessment.

Here is another example:

#### QUESTION:

The night after an exploratory laparotomy, a patient who has a nasogastric tube attached to low suction reports nausea. A nurse should take which of the following actions first?

#### ANSWER CHOICES:

1. Administer the prescribed antiemetic to the patient.

2. Determine the patency of the patient's nasogastric tube.
3. Instruct the patient to take deep breaths.
4. Assess the patient for pain.

In this prioritization question, you can scan the answer choices and immediately see that two of the choices require you to take action and are therefore implementations (1 and 3). Immediately eliminate those two answer choices since you are also given choices involving assessment. Let's examine these other two choices. Choice 2 is important in this situation. **Prior to an exploratory laparotomy, a patient has a nasogastric tube inserted to decompress the stomach. Nausea can be caused by distention or inadequate drainage.** Thus, it would be important to assess the tube for drainage and check the tube's patency. Leave this choice as a possible correct answer. Choice 4 is tempting because you see the word "assess," but you must think further. Is pain an issue for this patient? No, the patient is complaining of nausea. It is more important to find out what is causing the nausea. Eliminate choice 4. Now that you have eliminated choices 1, 3, and 4, you know that answer choice 2 is the correct answer. In prioritization questions, use the nursing process. **When faced with both assessments and implementations, eliminate the implementations first unless you are certain the question gives you enough information to take action. If the question does give you enough information to act, feel free to eliminate the answer choices involving unnecessary assessment.** However, you must follow the thought process to be sure. **Assess first, then implement!**

### Maslow's Hierarchy of Needs

Maslow's hierarchy of needs dictates priorities in nursing care. Thus, Maslow will be very important as you work through items—especially those involving prioritization—on the NCLEX.

### Maslow's Hierarchy of Needs

Humans must have needs met on the lower levels of the pyramid before they are able to address needs on the higher levels. Nurses must recognize these needs and care for patients accordingly.

**Physiological needs are most important and always come before psychosocial needs (safety, security, love, and belonging).** According to Maslow, physiological needs consist of oxygen, food, water, excretion, sleep, sex, and homeostasis. **Pain is considered a psychosocial need and not a physiological need unless it is extreme** (i.e., renal calculi) or it interferes with the ability to render necessary care (i.e., changing a dressing on a burn patient). These exceptions are important to remember on the NCLEX-PN.

**Once physiological needs are met, safety and security are most important. Safety includes safety of body, mind, and environment. Safety is important not just in infection control or medication use but in the nursing environment as well.** This is why you may see questions on the NCLEX-PN regarding a janitorial mop left in a hallway or a fire breaking out in a patient room. Safety and security also involve emotional needs. For example, a woman who has just had a mastectomy will have a need to talk about her emotions regarding the consequences of her operation.

**When you find questions on the NCLEX-PN regarding human needs, use Maslow's hierarchy!** If there are answer choices dealing with unmet physiological needs, you'll know that these need to be addressed first. Here is an example of a prioritization question that uses this strategy:

### QUESTION:

A patient with acquired immunodeficiency syndrome (AIDS) has the following nursing diagnoses. Which one should the nurse address initially?

### ANSWER CHOICES:

1. Risk for infection
2. Self-care deficit
3. Disturbed body image
4. Activity intolerance

Use Maslow's hierarchy to answer the question. First, determine which needs are met by each answer choice. Choices 2 and 3 are psychosocial, while choices 1 and 4 are physiological. **Maslow dictates that the**

**physiological needs take priority**, so you can first eliminate choices 2 and 3. Next, consider the two choices that are left. Choice 1, *“risk for infection,” is extremely important for this client. Infection is life-threatening for a patient with AIDS.* Choice 4 is important to the client’s health but is not immediately life-threatening. Thus, you may eliminate choice 4 and select choice 1 as the priority. Choice 1 is correct. In the first section on prioritization questions, we learned to use the nursing process to eliminate answer choices. Occasionally, you will see a prioritization question in which *all* of the answer choices are assessments. In this case, using the nursing process will not help you. Instead, refer to Maslow in order to prioritize.

First, examine the answer choices for anything that is not physiological; **if there are physiological needs in some choices and psychosocial needs in others, you can safely eliminate the psychosocial answers. After that, keep Maslow’s second rung, safety, in mind.** **Which choice will not cause harm to the patient and will keep the patient safe?** You will find that when all of the answer choices are assessments, questioning safety will commonly lead you to the correct answer. Here is an example of this strategy:

#### QUESTION:

A nurse is performing an admission assessment on a patient scheduled for possible gallbladder surgery. The patient is scheduled the following day for an oral cholecystography. Which of the following **would be most important** for the nurse to include in the **initial assessment**?

#### ANSWER CHOICES:

1. Any allergies the patient might have
2. Specific location of any pain
3. Family history of gallbladder disease
4. Review of any medications the patient has been taking

All of the answer choices for this question are assessments, and all of the assessments listed should be included in the initial interview. None of them should be eliminated as unnecessary. ***In order to decide which is most important, question safety.*** Which assessment is necessary to keep the patient safe? A patient with allergies to iodine or seafood can have an allergic reaction to radiopaque dyes or oral iodine preparations used in tests like cholecystograms, so checking for allergies prior to this test is important to the client’s safety. While the other answer choices are important assessments, they are not as specific to the safety of the client during the upcoming diagnostic test.

#### The ABCs

***In addition to using the nursing process and Maslow’s hierarchy for prioritization questions, keep the ABCs (airway, breathing, and circulation) in mind. These are essential to life and always come first.***

*(Although Maslow lists excretion as a physiological need, it will not be important if your patient cannot breathe!)*

The following sample question enables you to practice using all three prioritization methods: the nursing process, Maslow’s hierarchy of needs, and the ABCs.

#### QUESTION:

A patient who is one day postoperative after a cholecystectomy reports pain at the surgical site. **Before** giving a narcotic analgesic medication to the patient, **it is essential** for a nurse to take which of the following actions?

#### ANSWER CHOICES:

1. Measure the drainage from the patient’s T-tube.
2. Record the patient’s report on the chart.
3. Take the patient’s pulse rate, respiratory rate, and blood pressure.
4. Determine if the patient has voided.

***Immediately, you should notice that all of the choices are assessments.*** Also, you will see that all of these assessments are things that you should do for a postoperative patient. This is another one of those frustrating questions in which all of the answer choices seem correct.

***Remember Maslow’s hierarchy; first, examine the patient’s physiological needs.*** The patient is reporting pain. Pain is considered a psychological need unless it is extreme and/or points to a physiological problem. If the patient’s other needs are met, the nurse would take action to try to alleviate the pain. ***Before taking the action of administering medication, something else must be essential. (The question asks for this “essential” thing, so we know it exists.)***

Next, check to see which of the answer choices address physiological needs in case we can eliminate choices that deal only with psychosocial needs. In this question, all of the choices involve physiological assessments. Thus, we do not have any clues to help us eliminate the answer choices that do not involve physiological needs. Now we should move on to safety. (**If you remembered the strategy from the previous section, you could have skipped to this step—when you are faced with all assessments in the answer choices, question safety!**) Which of these has something to do with safety in this situation? **You are about to administer a narcotic analgesic medication. These medications can depress respiration. To keep the patient safe, you must first check the patient’s vital signs, including respiration.** Answer choice 3 is correct. If you did not remember that narcotic analgesics can depress respiration, you would have found the correct answer anyway—by moving on to the ABCs. Answer choice 3 clearly addresses these and would have been the logical choice. Working your way through Maslow’s hierarchy and the ABCs will always lead you to the correct answer choice. Let’s try one more question.

**QUESTION:**

The nurse caring for the client with myasthenia gravis (MG) knows that awareness of possible complications direct the care provided. **Prioritizing**, the nurse will first

**ANSWER CHOICES:**

1. inspect for hemorrhage.
2. assess for pneumonia.
3. offer to cut the client’s food as needed.
4. provide the client with a bedside commode.

**This is clearly a prioritization question as it includes both “first” and “prioritizing” in the verbiage.** Again, **we begin with the nursing process. If the question contains enough information to take action, then you may implement. If not, you need to assess first.** In this question, we are not given much information in the question except that the patient has myasthenia gravis (MG). Thus, we do not have enough information to implement; further assessment is needed. Since we need to assess first, we can eliminate any answer choices that are implementations—so eliminate choices 3 and 4.

We still have choices 1 and 2 remaining, which are both assessments. Let’s examine choice 1: Is there anything in the question that implies this patient is bleeding? Are bleeding disorders typically found in MG patients? The answer to these questions is “no,” so eliminate this answer choice. Now we know that answer choice 2 is correct because we have eliminated the others.

If you’d like to know why choice 2 is correct, ask yourself, “What are the interventions for complications of myasthenia gravis?” Maintaining an adequate respiratory effort, ensuring adequate nutritional intake, and maintaining independence and mobility to the extent possible are all interventions. Which one is the priority? Think ABCs—airway, breathing, and circulation. Answer choice 2 is the correct answer. Students may be tempted by answer choices 3 and 4 because they are important implementations and they do relate to MG. **However, remember the nursing process. You cannot implement until you have adequately assessed the patient. Following Maslow’s hierarchy, the nursing process, and the ABCs will ensure that you eliminate answer choices in prioritization questions and arrive at the correct answer every time.**

**REMEMBER THE PNEUMONIC: PHAN:**  
**Priority questions – Hierachy, ABC’s, Nursing Process.**

## **Prioritizing Patients**

Another type of question that you will commonly see does not ask you to prioritize your actions but rather to prioritize patients. One of these questions might look like this:

**QUESTION:**

A nurse in the emergency department has assessed and triaged all of the following children. **Which one should be cared for first?** (ask yourself who is the MOST unstable?)

ANSWER CHOICES:

1. A 6-year-old who is experiencing abdominal pain and diarrhea
2. An 8-year-old who fell and is experiencing pain and swelling of the left arm
3. A 10-year-old who is exhibiting nasal flaring and tachypnea
4. A 13-year-old who has a 2 cm bleeding laceration of the lower lip

When prioritizing patients, you will use the tools you just learned in the previous section: Maslow's hierarchy, the nursing process, and the ABCs. In prioritizing patients, however, **there is one guiding rule to remember: the most unstable patient is always seen first.** Use the ABCs and Maslow to determine which patient is the most unstable. In the sample question above, the child in choice 3 is showing signs of respiratory difficulty, thus taking priority according to the ABCs. Choice 3 is correct.

### Therapeutic Communication

Therapeutic communication is an important skill for a nurse and is thus tested on the NCLEX-PN. Good skills in this area enable you to communicate effectively with your clients, their family members, and your peers in the health care field. Therapeutic communication promotes clarification by sticking to the facts while still listening to the client and promoting understanding. Questions testing this skill will generally ask you to choose a nurse's best response in a given situation.

**Eliminating answers is the key to these questions. Make sure you read every response and eliminate those that do not fit the guidelines for therapeutic communication. Don't fall into the trap of just selecting the one that sounds good!** Here are some recommendations and examples to help guide your process of elimination for therapeutic communication questions:

- **Use broad opening statements and general leads.** These encourage your clients to choose the topic of conversation. They can provide you with information about their thoughts and feelings and facts that could affect your care of them. For example, "Can you tell me more about that?" and "What are you thinking about today?"
- **Use reflection.** Reflecting is the skill of paraphrasing what the client says in order to confirm your understanding and elicit further communication from the client. For example: Client: "My parents are really upset and angry at my doctor. I'm not sure what to do." Nurse: "So, your parents are upset? What do you think you should do?"
- **Use silence.** Silence conveys acceptance and gives the client an opportunity to lead the conversation. **ESPECIALLY WITH UPSET OR AGITATED PSYCHIATRIC PATIENTS. DO NOT SAY ANYTHING THAT COULD CAUSE ANGER OR HURT FEELINGS EVER! Do not add fuel to the fire.**
- **Make observations.** "I notice that you seem a bit down today."
- **Ask for clarification.** "Can you tell me more about that?"
- **Don't be authoritarian.** The nurse should not tell the client what to do while ignoring the client's thoughts or feelings.
- **Don't give advice.** This is not your role as a nurse. Avoid saying, "I think that you should..."
- **Don't change the subject.** Client: "I haven't had one visitor since I got here." Nurse: "They are serving your favorite sandwich for lunch today!"
- **Don't agree (or disagree!).** Avoid saying, "That's wrong," or "I agree with you."
- **Don't give false reassurances.** Avoid saying, "Don't worry, I'm sure that everything will be fine."
- **Don't ask closed-ended questions.** Questions that can be answered with "yes," "no," or a monosyllabic response do not promote further communication or elicit information about the client's thoughts or feelings.
- **Don't pretend to be a psychiatrist.** It is not the nurse's role to explore the client's feelings. Avoid answer choices that ask the client "why" or encourage deep exploration of feelings. Clients should be encouraged to verbalize their feelings but not to analyze them with the help of an LPN.
- **Don't focus on yourself.** The client does not need to hear that you are having a rough day or that your sister had cancer too. **A good nurse will keep the communication focused on the client's needs.** The following is an example of a therapeutic communication question:

**QUESTION:**

A woman who is at 34 weeks of gestation is admitted to the hospital in premature labor and tells a nurse “I am scared that my baby is going to die.” Which of these responses should the nurse make?

**ANSWER CHOICES:**

1. “Is there anyone with whom you would like to speak about your concerns?”
2. “Your baby is going to be fine, so just relax.”
3. “You seem very concerned. Let’s talk about how you are feeling.”
4. “We are doing all that we can to promote a healthy delivery.”

Consider each answer choice using guidelines for therapeutic communication. Choice 1 “passes the buck” and does not address the woman’s concerns; therefore, eliminate this answer choice. Choice 2 provides false reassurance; eliminate this one too. **Choice 3 is correct, as it opens the lines of communication and asks for further clarification of the client’s concerns.** Choice 4 does not address the woman’s concerns and closes, rather than opens, lines of communication with the patient; eliminate choice 4.

**Pediatric and Psychiatric Clients**

Occasionally, you will be faced with a question on therapeutic communication involving a psychiatric or pediatric client. **Don’t forget that you will communicate with these clients differently.** Some of the previous rules may or may not apply. For pediatric clients, make sure your answer choice is age-appropriate and takes the child’s developmental level into consideration. For example, try the following question:

**QUESTION:**

A 3-year-old child says to a nurse, “I have a bear that sleeps under my bed. I take him for a walk every day.” Which of these responses should a nurse make?

**ANSWER CHOICES:**

1. “Bears can be scary.”
2. “Have you been dreaming about bears?”
3. “I’m glad you told me about your bear.”
4. “Do your mother and father know about the bear?”

It is normal for preschoolers to have imaginary playmates. The child’s fantasy should be accepted and acknowledged as a fantasy. Thus, choice 3 is the best choice, as it accepts the child’s comment and keeps the lines of communication open. The other responses may make the child feel like having an imaginary friend is wrong or not acceptable. For questions involving psychiatric clients, take note of the information given in the question about the client’s mental state or psychiatric condition, as this will heavily influence your communication choices. For example, here is a question where the client’s mental state dictates the correct answer choice:

**QUESTION:**

A hyperactive client, who has been going about the unit constantly joking and giving advice, passes a nurse and says, “You’re a dopey slob. Bossy, too!” Which of these responses by the nurse would be therapeutic?

**ANSWER CHOICES:**

1. Ask the client where she learned that behavior.
2. Remind the client that such remarks can result in a loss of privileges.
3. Ignore the client’s remark.
4. Tell the client to go to a quiet place and think about the remark.

Here, the question specifically tells you that this client is hyperactive and has a history of making comments to others (“joking and giving advice”). This tells you that this client needs frequent control. If you were not given this information, it might be appropriate to remind the client that such remarks are inappropriate. However, since you are given this information in the question and the nurse is not the client's therapist, it is best to ignore a hostile but harmless remark (choice 3). Challenging the client by asking where he or she learned that behavior or threatening loss of a privilege may result in an increase in the hostile actions of this client. Suggesting that the client go to a quiet place and reflect on the comment may also lead to an increase in hostile actions. Therapeutic communication is very important for a nurse. When attacking these questions on the NCLEX, keep the above guidelines in mind and you will be successful!

## Medication

You will face many questions involving common medications on the NCLEX. It is important that you spend time reviewing the major classifications of medications and are familiar with their administration, expected therapeutic effects, possible side effects, and interactions with other medications. The good news is that it is not necessary to memorize long lists of medications. On the NCLEX-PN, you will always be given both the generic name and the trade/brand name of the medication, which doubles your chances of remembering the information. It will also help you to memorize common medication endings and how they can help you classify drugs. This way, if you run across a medication you don't recognize, you can make some inferences about its classification. There are a number of different ways you will see medication questions on the NCLEX. We will cover some general categories of questions and the best ways to prepare for them.

## The Six Rights

**Many medication questions on the NCLEX will test your knowledge of the six rights of medication administration: right patient, right drug, right dose, right route, right time, and right documentation.** You were probably drilled on these in nursing school! Some texts still teach the “five rights” (not including documentation), but many now include documentation as the sixth. Make sure you keep these “rights” in mind as you are answering questions. Try this one:

### QUESTION:

The medication administration record shows that the client is to receive lisinopril (Zestril) 10 mg PO at 9 a.m. The client's drug supply has tablets labeled fosinopril (Monopril) 20 mg. Which action by the nurse ensures that the right drug and the right dose are administered?

### ANSWER CHOICES:

1. Give one tablet of Monopril from the drug supply.
2. Give one half tablet of Monopril from the drug supply.
3. Ask the client if the 20 mg tablet looks familiar.
4. Read the original physician order to verify the drug order.

This is an example of two different drugs with very similar names. The question of which drug is to be given to the client is answered by checking the original physician order and giving that drug. Thus, choice 4 is correct. The other responses are incorrect because they either do not ensure that the correct dose and correct drug are given, or they are dangerous and inappropriate. This question was testing your ability to remember and use the right dose and the right drug. When you see a question involving medication, make sure you check for the six rights.

## **WITH MEDICATIONS QUESTIONS CHECK THE SIX RIGHTS**

## Assessment

Another primary area that you will see covered by medication questions involves assessment. In order to be a safe and effective nurse, you must administer medication safely. **This means you must always assess before administering medications.** There are a variety of assessment areas. Some of these include allergies, vital signs, harmful interactions, lab values, and the patient's medical history or current diagnosis. Keep in mind that the NLCEX-PN now tests both herbal and nutritional interactions with drugs. For example, you might see a question on how alcohol or certain foods will affect a patient taking a particular medication. Here is an example of a medication question involving assessment:

## QUESTION

Prior to the administration of edrophonium (Tensilon), the nurse should perform which of the following client assessments?

### ANSWER CHOICES

1. Range of motion
2. Pain tolerance
3. Apical pulse
4. Pupillary response

In order to correctly answer this question, you must remember that there is a possibility of a severe cholinergic reaction of edrophonium. Thus, the nurse should assess respiratory rate and heart rate prior to administration. Range of motion, pain tolerance, and pupillary response are not primary concerns. Choice 3 is correct.

## Patient Teaching

You will likely see a number of questions involving patient teaching and medication. For these, simply follow the same strategy that is covered later in this document for teaching questions. They will work the same way and will guide you to the correct answer.

## Effects

Once a medication has been administered, it will have certain effects on the patient. The NCLEX-PN tests these effects as well. You may see questions on the medication's therapeutic effects, side effects, or toxicity. Again, your medication knowledge is central to answering these correctly. Here is an example of a simple question related to therapeutic effectiveness:

### QUESTION:

The client received NPH insulin 30 units SC at 7:30 a.m. Which data will the nurse use to evaluate the client for the drug's therapeutic effectiveness?

### ANSWER CHOICES:

1. The client's blood pressure 2 hours after dose of drug
2. The client's appetite and food intake at lunch
3. The client's blood sugar level at 4:30 p.m.
4. The client's oxygen saturation level before drug dose

NPH insulin is used to therapeutically lower blood sugar levels in clients with diabetes; the drug's effect peaks over four to twelve hours and lasts 24 hours. Thus, choice 3 is correct. NPH is a LONG acting insulin.

## Calculation

Calculation questions on the NCLEX-PN generally involve medication and dosages. Although in many clinical settings today medications and dosages are provided to the LPN, there will be times when you are required to perform calculations. Despite the help you will have in this area in your nursing practice, it is still important that you are safe and effective in your calculation of dosages and in your medication knowledge. The NCLEX will test this skill, so make sure you are ready!

The most important thing you must remember when handling calculations on the NCLEX is not the math. On the NCLEX-PN, the computer provides you with a calculator that you may use that minimizes or maximizes on the screen as necessary. Thus, the calculator will assist you with any arithmetic. **The most common error students make is in converting to the units of measurement needed for the answer. Often, a common conversion error**

**will be offered as one of the wrong answer choices. Make sure you have your conversion factors correct as you figure your dosages, and you will succeed. Try your hand at this calculation question:**

**QUESTION:**

The physician orders an IV solution of 1 liter of 5% dextrose in normal saline to be administered to a client over 6 hours. The nurse calculates the administration rate and sets the IV controller to which of the following rates?

**ANSWER CHOICES:**

1. 50 mL per hour
2. 100 mL per hour
3. 166 mL per hour
4. 200 mL per hour

The rate for administration is calculated by converting the 1L in the order to its equivalent: 1000 mL. For 1000 mL to be delivered in 6 hours, divide 1,000 by 6 = 166 mL. The IV controller delivers the rate set as the number of mL per 1 hour. Thus, choice 3 is correct.

**Positioning**

Do you know your patient positions? The NCLEX frequently tests your knowledge of positions by placing them within the framework of critical thinking. Of course, you must know the basic positions, and you learned these in your nursing program. If you are not familiar with positioning terminology, make sure you spend some time looking over these during the reviewing phase of your preparation. Even once you know the basic positions, however, it is easy to get confused on the NCLEX. The strategy for handling positioning questions is to ask yourself *why*. Why do you need to place the patient in a certain position? Are you trying to prevent something or promote something? What is it that you are trying to prevent or promote? In order to decide which position will best suit your aim, you must remember anatomy and physiology. (If you are weak in this area, you will need to spend some time reviewing in order to truly excel at these NCLEX questions.) Use your anatomy and physiology knowledge to answer your own question—what position will prevent or promote what I am trying to accomplish for this patient? Asking yourself this question will give you the correct answer choice! Here is an example:

**QUESTION:**

A 22-year-old patient has a splenectomy because of trauma. Until the patient is fully recovered from anesthesia, which of the following measures should be included in the care plan?

**ANSWER CHOICES:**

1. Keep the head of the patient's bed raised 30 degrees.
2. Keep the patient in a prone position.
3. Keep the patient's head turned to either side.
4. Keep the patient's neck flexed toward the chest.

You are given a list of possible positions in the answer choices, so you know this is a positioning question. Begin by asking yourself *why* you need to position the patient in a certain way. What are you trying to prevent or promote? The question gives you a hint by saying, “until the patient is fully recovered from anesthesia.” You are trying to maintain a patent airway for this postoperative patient. Which position best aids this goal? Choice 3, turning the patient’s head to the side, is the best way to maintain the airway. Thus, it is the correct answer. Choices 2 and 4 will interfere with this goal, and choice 1 is not directly related to maintaining an airway; raising the head of the bed may not be indicated depending on the nature of the trauma. By knowing what you need to promote for this patient, the proper position becomes clear. Sometimes you will find a surprise in positioning questions—do you need to place the patient in a position at all? Questions will occasionally give you a variety of positions as answer choices, but sometimes they give positioning choices among other choices of actions that may be correct. Be aware: just because there are positions in the answer choices does not mean the question is solely about positioning.

## Teaching

There are two kinds of teaching questions: those that ask you to identify which statement provides the best teaching, and those that give you a list of statements made by a client and then ask you to identify which are correct and/or incorrect. We will cover both types of questions in this section.

### Type I: Providing Clear and Accurate Information

The first type of question is generally very straightforward. You are asked to provide teaching on a subject to an individual or a group. Thus, the strategy is simple as well. **When you are asked in the question to provide teaching to someone, whether it's a client, a nursing assistant, or a family member, simply ask yourself, "Which answer choice provides the clearest and most accurate information?"** Sometimes only one answer choice will be accurate, while the others contain erroneous information. Occasionally, there may be more than one answer choice that provides accurate teaching. In this case, choose the one that communicates most clearly and directly on the subject matter at hand. Here is an example of this type of question:

#### QUESTION:

A nurse should reinforce **which** of these discharge instructions with a patient who has had a lumbar laminectomy?

#### ANSWER CHOICES:

1. "Refrain from wearing restrictive clothing."
2. "Hold the weight close to your body when lifting."
3. "Do not sit for prolonged periods of time."
4. "Place a pillow at your back while in bed."

**(with this question everything is wrong except for one)**

The question is straightforward, so simply ask, **"Which of the answer choices provides the clearest and most accurate information?"** **Consider each answer choice, and eliminate as you go.** Choice 1 provides inaccurate information; patients in this situation will wear a restrictive brace, so they cannot refrain from wearing restrictive items. Choice 2 also provides inaccurate information, as this patient should not lift anything at all. Choice 3 contains correct and accurate teaching; sitting will increase surgical pain, so the patient should not sit for prolonged periods of time. Keep choice 3 as a possible correct answer. Choice 4 also provides inaccurate information; patients should lie on their sides, not their backs, and a pillow is optional. Thus, choice 3 is correct, as it is the only answer choice that provides accurate teaching. **When you see a question asking you to provide teaching in the answer choices, always ask yourself, "Which answer choice provides the clearest and most accurate information?" You will then be able to eliminate choices until you find the correct answer choice.**

### Type II: Identifying Correct vs. Incorrect Information

The other type of teaching question that you will frequently encounter gives you a list of patient statements and then asks you to identify whether the information in those statements is correct or incorrect. This kind of question can become quite tricky if you do not have a strategy to use. Once you begin reading the answer choices, some will have correct information, some will have incorrect information, and some will be a combination of the two. It is easy to forget which one you were supposed to be looking for! Read the following examples:

#### QUESTION:

After being instructed in infant care, a woman who is a first-time mother makes all of the following statements to a nurse. Which statement would indicate that the woman needs further instruction?

#### ANSWER CHOICES:

1. "I will not remove the umbilical cord stump even if it looks like it is just hanging by a thread."
2. "I will fold my baby's diaper so the umbilical cord stump is open to the air."
3. "I will wash the umbilical cord stump carefully during my baby's tub bath."
4. "I will expect the umbilical cord stump to turn black and fall off in about ten days."

QUESTION:

Which of these statements, if made by a client who is on a sodium-restricted diet, would indicate that the client has a correct understanding of the diet?

ANSWER CHOICES:

1. "I have soup for lunch every day."
2. "I like to flavor my food with soy sauce."
3. "I try to drink a glass of tomato juice a day."
4. "I usually have white toast and jam for a snack."

Once you begin reading the answer choices for the questions, it is easy to forget what you were looking for once you get to choice 3 or 4! In the first question, you can easily begin thinking of everything you know about umbilical cord stump care and start to see which statement might be right or wrong, but then you may find yourself asking, "What am I supposed to be answering again? Am I looking for a correct statement or an incorrect statement?" There is a very simple way around this.

**The strategy for these questions is this: before you begin reading the answer choices, clearly identify whether you are looking for correct or incorrect information, then reword the question to keep it simple.** For example, in the first question above, the question says "the woman needs further instruction." The phrase "needs further instruction" indicates that the woman is going to say something that is not true, or incorrect. Thus, you are going to look for incorrect information in the (correct) answer choice. This may already sound confusing, so reword the question to keep it clear in your mind before reading the choices. An example of this reworded question would be "What is not true about umbilical cord care?" Another way in which you might word it could be "Which of the following statements contains incorrect information about umbilical cord care?" The exact wording is not important as long as your new, reworded question makes it very clear to *you* that you are looking for incorrect information.

When you find the answer choice that contains only incorrect information, you have found the correct answer choice. Let's walk through the choices in this example together. Choice 1 contains correct information; the woman should not remove the cord, even if she thinks it is just barely hanging on. Since it contains correct information, choice 1 is the *wrong* answer. Choice 2 also contains correct information; she should fold the baby's diaper down. Therefore, eliminate choice 2. Choice 3 contains incorrect information. She does not need to wash the cord stump during a bath. In fact, until the cord falls off, the infant should not receive a tub bath—only a sponge bath. Keep this as a possible correct answer choice. Choice 4 contains correct information. She can expect the cord stump to turn black and to fall off in about 10 days. Again, since the information is correct, this answer choice is wrong. Choice 3 is the only choice containing inaccurate information, so it is the correct answer. Now let's try the second example question. In the question, the phrase "the client has a correct understanding" indicates that you are looking for correct information in the answer choice. So, reword the question. Since this is a nutrition question, ask yourself what correct information would mean. This client is on a sodium-restricted diet, and you are looking to make sure the client understands the diet. Thus, you want to see the client making a low-sodium choice, which would be a correct choice. Reword the question as, "Which of the following choices contains the least amount of sodium?" Eliminate answer choices using your knowledge of nutrition. Choices 1, 2, and 3 all contain more sodium than choice 4. Choice 4 is the correct answer. **As you practice using this strategy in the ORB, it will become second nature to you and will not seem confusing at all. Remember, first identify if you are looking for correct or incorrect information. Next, reword the question. It is that simple!**

## Nutrition

Nutrition is an important concept in nursing, and the NCLEX will certainly test your nutritional knowledge. Nutrition questions can be worded in a variety of ways. You may see nutritional information tested within a teaching question (such as the example in the previous section) or in a prioritization question. Alternatively, the question may just deal with nutrition alone and require you to eliminate answer choices. The main strategy to remember with nutrition questions is regardless of how the question is worded, it can generally be reworded as, "Which food/meal is highest or lowest in (nutrient)?" Thus, succeeding on these questions is mainly a matter of rewording the question and using your nutritional knowledge to eliminate answer choices. Here are two examples to try:

QUESTION:

A pregnant woman's daily calcium requirements would be met by which of these food combinations?

ANSWER CHOICES:

1. Two servings of leafy green vegetables, one serving of milk, and one slice of multigrain bread
2. One pint of milk, one ounce of cheese, and one serving of ice cream
3. Two eggs and one serving of cottage cheese
4. One pint of plain yogurt and two servings of red meat

Apply the strategy. **We should reword this question in the format of, “Which food/meal is highest or lowest in (nutrient)?” Since this question asks us to fulfill a calcium requirement, reword it as, “Which of these meals is highest in calcium?”** Consider each answer choice. The daily calcium requirements would be met by one pint of milk, one ounce of cheese, and one serving of ice cream (choice 2). The other choices are incorrect because multigrain bread, eggs, and meat are low in calcium.

QUESTION:

Which of the following menus would be recommended for a patient with a theophylline level of 32 mcg/mL?

ANSWER CHOICES:

1. Cheese sandwich; banana; whole milk
2. Charcoal-broiled beef; cottage cheese; sugar-free gelatin with whipped cream
3. Turkey; mashed potatoes; dressing; coffee with cream
4. Vegetable lasagna; Italian bread; green salad; tea

In order to reword this question in the strategy's format, **you must know that low carbohydrate, high-protein diets can help eliminate excess theophylline. Thus, reword the question as “Which of these meals is low in carbohydrates and high in protein?”** Choice 2 is clearly the lowest in carbohydrates while being high in protein. Choice 2 is correct. When you are faced with a question that tests your nutritional knowledge, always try to apply this strategy first. You will find that in most cases, rewording the question will keep the choices simple and you will breeze through the nutrition questions!

### Diagnosis

Some questions on the NCLEX will provide you with a variety of symptoms and then ask you to make a possible diagnosis. For these, simply eliminate answer choices. Use your knowledge of the conditions listed in the answer choices and eliminate those which do not match the symptoms provided in the question. It is important to remember that the question will not generally give you superfluous information, so consider *all* of the information you are given as you work your way through the answer choices. Here is an example of a diagnosis question:

QUESTION:

A client in the inpatient psychiatric unit confides to a nurse that she was raped five months earlier. She also states that she has been having trouble falling and staying asleep. She believes her irritability is related to sleep deprivation. Further nursing assessment reveals that the woman cannot recall details of the rape and feels detached when having sex with her husband. The nurse recognizes that this patient is experiencing symptoms of which disorder?

ANSWER CHOICES:

1. Post-traumatic stress disorder
2. Somatoform disorder
3. Conversion disorder
4. Dissociative disorder

Consider each answer choice while using your knowledge of the symptoms listed in the question. **Post-traumatic stress disorder (choice 1) is characterized by a pattern of symptoms resulting from exposure to a**

**traumatic event. These symptoms last longer than a month (which distinguishes the symptoms from an acute stress disorder, which resolves within a month).** Choice 1 is accurately represented by the symptoms and scenario given in the question; keep it as a possible correct answer choice. Continue to work your way through the other answer choices. A somatoform disorder (choice 2) is characterized by physical symptoms that suggest medical disease but without demonstrable organic pathology or known pathophysiological mechanisms to account for them; this does not match this woman's symptoms, so eliminate it. A conversion disorder (choice 3) refers to a loss of or changes in body function as a result of psychological conflict. Although this woman's sleeping habits have changed, this disorder does not fit the symptoms as well as choice 1; therefore, eliminate choice 3. Dissociative disorder (choice 4) involves a disruption in the usually integrated function of consciousness, identity, and memory, which disorganizes the personality. This certainly does not describe this woman; eliminate choice 4 and select choice 1 as correct. Sometimes diagnosis questions will add an additional step to your thought process. Rather than asking directly for the disease or condition you suspect, the question will ask for a lab value or a test that might indicate that condition. For example, consider this question:

#### QUESTION:

A college student comes to the health clinic and tells the nurse she thinks she has the flu. She has been nauseated and has had some vomiting during the past 24 hours. She tells the nurse she hasn't had much of an appetite for several days and thinks she had a fever but didn't check it. She says she has some pain in the right lower abdominal area. The nurse informs the on-call clinic physician of the symptoms and expects to draw blood for which of the following test(s)?

#### ANSWER CHOICES:

1. BUN and serum glucose
2. White blood count (WBC)
3. Serum AGA and EMA
4. Serum lipase and serum amylase

**The question does not ask what condition you suspect—it asks for which test will be needed. Thus, your thought process must include both steps.** First, decide what condition you suspect. Then, consider which test will be needed to confirm your diagnosis. In this example, the student's symptoms are consistent with appendicitis. Which test will confirm this diagnosis? WBC will exhibit elevated leukocytes and neutrophils; choice 2 is correct. BUN and serum glucose (choice 1) are elevated in pancreatitis. Serum AGA and EMA (choice 3) are blood tests used to detect antigliadin and antiendomysial antibodies in cases of celiac disease. Serum lipase and serum amylase (choice 4) are elevated in pancreatitis. Diagnosis questions are generally very straightforward. Simply make certain you read every answer choice and eliminate those that do not match the information given in the question.

#### Knowing What is Expected

Many NCLEX questions will test your nursing knowledge within the framework of what is normal or expected. **Although these questions might be worded a variety of ways, they all boil down to the same concept: recognizing what is normal or knowing what to expect from a certain situation.** These questions might cover such topics as lab values, child development issues, symptoms of diseases, or the side effects of medications. No matter what the topic, the essential strategy is the same: compare the information that is being given with your knowledge of what is normal or expected. Try these two questions:

#### QUESTION:

In a patient with an ostomy, **the nurse would alert the physician about which** of the following assessment findings?

#### ANSWER CHOICES:

1. Presence of necrotic tissue
2. Flatus
3. Pink mucosa
4. Presence of peristalsis

The phrase "**nurse would alert the physician**" **tells you that you are looking for something abnormal or alarming in the answer choices.** Three of the choices represent normal or expected findings in a patient with an ostomy; one choice is alarming. Compare the choices with your knowledge of what is normal or

expected. Choices 2, 3, and 4 are all normal findings. Choice 1, the presence of necrotic tissue, is a serious complication and the physician should be notified immediately.

**QUESTION:**

In the nursery, the nurse is performing a neurologic examination on a one-day-old neonate. Which findings would indicate possible asphyxia?

**ANSWER CHOICES:**

1. The neonate grasps the nurse's finger when she puts it in the palm of his hand.
2. The neonate's toes do not curl downward when they are stroked.
3. The neonate turns toward an object when the nurse touches his cheek with it.
4. The neonate does stepping movements when held upright with his soles touching a surface.

The answer choices cover various normal reflexes for a one-day-old infant. **Identify which answer choice indicates an abnormal response.** Grasping the nurse's finger (choice 1), turning toward an object when stimulated (choice 3), and stepping movements (choice 4) are all normal movements for a one-day-old neonate. Choice 2 represents an abnormal response. The normal response would be that the neonate's toes would curl downward with stroking (**Babinski's reflex**). The failure of this reflex may indicate anoxic damage, and further evaluation would need to be done.

**Legal and Ethical Issues**

The NCLEX-PN will test you on your knowledge of both legal and ethical issues for nurses. Most of this material will be familiar to you, as you will have covered it in nursing school. You will very likely face several questions on your NCLEX-PN that will present you with an ethical dilemma or will test your knowledge of legal boundaries. **From a strategy perspective, remember that you should always choose the safest course of action that meets legal requirements for a nurse.** Here are two examples of what you might see:

**QUESTION:**

Under which of the following conditions could a nurse apply a physical restraint to a patient?

**ANSWER CHOICES:**

1. The family has verbally requested a physical restraint for their loved one's safety.
2. There is a physician order and the patient is in danger of removing his/her oxygen mask.
3. There are no physician orders, but the patient is being extremely uncooperative.
4. No conditions warrant physical restraints.

**Apply the strategy; what meets legal requirements, and what is the safest course of action?** Choice 1 does not meet legal requirements, as the family cannot request a physical restraint. In fact, a physician's order is always needed for a restraint, and the order must include the type of restraint, the reason for the restraint, the length of time the restraint is to be applied, and criteria for restraint removal. Thus, you can also eliminate choice 3. If there are no physician orders, you cannot apply a restraint. Now consider the choices that are left: choices 2 and 4. Choice 4 says there is never a time to use physical restraints. This is not true; eliminate choice 4. Choice 2 is correct. There is an order and it is the safest course of action, as the patient is in danger of harming himself.

**QUESTION:**

A nurse is making a home care visit to an elderly woman who was recently discharged from the hospital. The woman lives with her daughter, her daughter's boyfriend, and six grandchildren. One of the children, a four-year-old, appears to have burn marks on her body. Two other children appear malnourished and unusually fearful of the nurse. The mother says that the four-year-old was burned with water from the stove several days ago, but the location of the burn marks seems inconsistent with that information. What should the nurse do?

ANSWER CHOICES:

1. Inform the mother that her explanation of what happened to the child appears inconsistent with the child's injury.
2. Plan another visit for the following day when the mother's boyfriend will be at home to further observe.
3. Immediately report these observations to the proper authorities based on state child abuse laws.
4. Set up a plan of care involving counseling for the mother, including a parenting support group.

Again, ask yourself what is the safest course of action within the legal boundaries of the nurse. The child's symptoms may be related to child abuse; the other children may also be experiencing child neglect. **The nurse has a responsibility as a health professional to immediately report suspected abuse or neglect so that the proper authorities can explore the situation thoroughly and provide immediate protection for any child who might be in an abusive situation. Only choice 3 represents the legal obligation of the nurse and is the safest course of action for the children involved.** Choices 1, 2, and 4 all represent an attempt by the nurse to intervene personally or to make a judgment call; it is not within the nurse's authority to step into this role. As long as you remember the legal guidelines you learned in nursing school and apply them during the test, there is no need to be concerned with these types of questions. **Always remember to take the safest course of action that meets legal requirements, and you will succeed every time.**

### Additional Strategies

Sometimes the question type itself does not point you to a specific strategy, but other clues in the question will. There are three strategies that can be very helpful on NCLEXP questions no matter what category the question falls under. **These strategies include rewording the question, using visualization, and understanding multiple commas.** We will cover all three strategies in this section.

### Reword the Question

In the section on teaching questions, we discussed rewording the question as part of the strategy. However, rewording the question can come in handy in other situations as well. When you read a question that seems like it is convoluted or has several thought processes involved, see if you can clarify the question by rewording it. You are shooting for *clarity* in your thoughts. Consider the following examples:

QUESTION:

A nurse is monitoring a resident's blood glucose level and obtains a reading of 50 mg/dL. The resident has type 2 diabetes. Which action by the nurse would be most appropriate?

ANSWER CHOICES:

1. Check for an insulin coverage order.
2. Take the resident's vital signs.
3. Give the resident 4 oz of orange juice.
4. Encourage the resident to engage in physical activity.

This question falls under the question type of "knowing what is normal and expected." The question gives you a blood glucose level for this patient that is low, and you should thus know that the blood sugar needs to be raised. So, you can simplify and clarify what this question is really asking by rewording it: "What is the best way to raise this patient's blood glucose level?" The reworded question makes it much easier to eliminate answer choices. Choices 1 and 2 obviously won't make any difference in the blood glucose levels. Choice 3 provides simple sugar to quickly raise the levels. Choice 4 is contraindicated, as the body would need to use even more glucose to sustain the activity. Choice 3 is correct.

QUESTION:

A patient who has chronic obstructive pulmonary disease (COPD) is admitted to the hospital. To prevent the patient's secretions from becoming too thick to cough up, which of these measures should be included in the care plan?

ANSWER CHOICES:

1. Encourage the patient to do diaphragmatic breathing exercises TID.
2. Encourage the patient to drink approximately three liters of fluids every day.
3. Instruct the patient to walk the length of the hall twice a day.
4. Instruct the patient to turn, breathe deeply, and cough every two hours.

Again, think of what the question is really asking. For clarity, reword the question as “Which of the following measures will best thin secretions?” It then becomes simple to eliminate choices. Answer choices 1, 3, and 4 are appropriate measures for COPD patients but are not directly related to keeping sputum thin. Choice 2, however, will keep the sputum thin and easier to cough up. Choice 2 is correct. Use this strategy when possible to simplify questions and make elimination easier. With practice, you will find that rewording the question will become second nature and be very helpful to you.

### Visualization

Visualization can provide assistance on certain kinds of questions. This strategy is most helpful on questions that ask you to teach a task to a client, to remember proper steps in treatment, or to locate certain spots on the body. (It can also be very helpful on positioning questions.) The visualization strategy is exactly what you expect: close your eyes and imagine yourself in the scenario. Once you have “seen” the scenario in your mind, open your eyes and address the answer choices, eliminating those that don’t match what you visualized.

Notice that when using visualization, you come up with the answer choice first, *before* reading all of the given choices. This is the opposite strategy than we have practiced in the rest of this document on other NCLEX questions—where you should always read the choices first, *then* eliminate. Remember the strategy of predicting answer choices versus eliminating them? When using visualization, you *will* predict the correct choice. Eliminating choices simply doesn’t work as well on this type of question because it is easy to become confused by the different descriptions given in the choices.

For example, if you are asked a question about teaching a patient to walk on crutches, you should stop and visualize yourself performing the task. Take some time to think carefully—close your eyes and picture yourself caring for a real person. Visualize yourself in the situation and make a note of the steps involved in the task. You will then be able to easily select the answer choice that applies. If you read all of the choices first, you may become overwhelmed by trying to visualize each one.

Visualizing each of the wrong choices will be a waste of your time. Questions that ask you to determine the steps in a procedure are also good candidates for the visualization strategy. For instance, a question might ask you the proper method for administering ophthalmic medications. Some alternate question types ask you to “drag and drop” the steps in a procedure into their correct order. Visualize yourself doing the procedure in question, and order the steps as you go. Finally, you will sometimes be faced with questions that ask you to pinpoint a location on the body. Again, you will find visualization very helpful. Close your eyes and imagine the location. When you open your eyes, selecting the correct answer choice will be much easier. Here is an example of a question where visualization can help you succeed:

QUESTION:

A client who has been immobilized for a period of time is being taught quadriceps-setting exercises in preparation for ambulation. Which of these statements, if made by the client, would indicate correct understanding of the instructions?

ANSWER CHOICES:

1. “I will squeeze my buttocks together while alternately crossing and uncrossing my legs.”
2. “I will alternately flex and extend my knee while rotating my ankle.”
3. “I will flex my hip with my foot flat on the bed and swing my knee from one side to another.”
4. “I will try to lift my heel while lying in bed with my knee flat against the bed.”

This question is formed as a teaching question, so you should still use the strategy for teaching questions. However, visualization will also guide you to the correct answer. **The phrase “correct understanding” indicates you are looking for correct information in the answer choice.** Thus, following the strategy for teaching questions,

you will reword the question as “What is the proper way to perform quadriceps-setting exercises?” Now it is time to visualize! Close your eyes and imagine yourself performing the exercise. Then open your eyes and read each answer choice carefully, eliminating those which don’t make sense or describe the exercise incorrectly. You will eliminate choices 1, 2, and 3 and select 4 as the correct choice.

### Multiple Commas

When you see a question in which every answer choice contains a list of items separated by commas, you should employ this strategy. We call it the multiple commas strategy because seeing multiple commas in the answer choices is your clue to use it! Let’s look at an example of a question that would alert you to use this strategy:

#### QUESTION:

Which of the following would be indicative of angina?

#### ANSWER CHOICES:

1. Chest tightness, muscle aching, jaw pain
2. Muscle aching, decreased respiratory rate, bradycardia
3. Chest burning, chest squeezing, jaw pain
4. Bradycardia, jaw pain, muscle aching

Now you can see why we call this the multiple commas strategy. At first glance, it can be overwhelming to see so many items listed in the answer choices—but as you practice these questions with a strategy, you will find that they are actually much easier than you would expect.

In order to use the multiple commas strategy, follow these steps:

1. **Check for repeats:** Look for repeated items (in any order) among the answer choices.
2. **Rearrange items:** If there are repeated items, rearrange the items so the same items appear in the same order as much as possible. This makes the answer choices easier to compare.
3. **Examine one section at a time:** Look only at the items listed before the first comma. For each one, ask yourself if it correctly answers the question. If it does not, eliminate that answer choice. In this way, you will not have to check every item in every answer choice. You will move to the next set of items (after the first comma) and only consider the answer choices you did not already eliminate.

Let’s use the sample question above to see how this works.

1. **Check for repeats:** There are several items repeated among the choices, including bradycardia, jaw pain, and muscle aching.
2. **Rearrange the items:** To make the answer choices easier to compare, rearrange them on your scratch paper. (Feel free to abbreviate, as these notes are for your own use.) This rearrangement might look like the following:
  1. Muscle aching, jaw pain, chest tightness
  2. Muscle aching, decreased respiratory rate, bradycardia
  3. Chest burning, jaw pain, chest squeezing
  4. Muscle aching, jaw pain, bradycardia

Notice that, as much as possible, similar items were placed in the same order.

3. **Examine one section at a time:** Begin to work your way through the choices and make eliminations. You will only examine one set of items at a time. To begin, only look at the items before the first comma. Is muscle aching or chest burning indicative of angina? **Chest burning is, but muscle aching is not. Thus, you can immediately eliminate choices 1, 2, and 4.** You already can see choice 3 is correct, and you did not have to even consider all of the other symptoms! If you want additional reassurance, or if you weren’t so sure if muscle aching might be indicative of angina, you could continue. In that case, you would move on to the items listed before the next set of commas. You can continue this process by going to the next item, comparing it with the other choices, and eliminating choices as you go. This strategy is especially effective because it cuts down on the amount of time you will spend on each question, while eliminating confusion among the many terms listed in the answer choices.

Let's see how this strategy works on another sample question:

**QUESTION:**

A 60-year-old woman has a new diagnosis of hypothyroidism. Which topics should the nurse include in this client's teaching plan?

**ANSWER CHOICES:**

1. A low-fiber, low-calorie diet; use of stool softeners; thyroid hormone replacements
2. A high-fiber diet, adequate fluid intake, thyroid hormone replacements
3. A low-fiber, high-calorie diet, thyroid hormone replacements
4. Use of stool softeners, restricted fluid intake, thyroid hormone replacements

Now apply the multiple commas strategy:

1. **Check for repeats:** There are quite a few repeated items.
2. **Rearrange the items:** Notice that all four answer choices list "thyroid hormone replacements." Since all answer choices include this, you do not need to consider it as you eliminate items. On your scratch paper, only write the items you must consider. Remember, the idea is to simplify! The rearrangement might look like this:

1. A low-fiber, low-calorie diet; use of stool softeners
2. A high-fiber diet, adequate fluid intake
3. A low-fiber, high-calorie diet
4. Use of stool softeners, restricted fluid intake

3. **Examine one section at a time.** For each item, ask, "Should this be included in a teaching plan for hypothyroidism?" First, just address the fiber. Should the diet be high-fiber or low-fiber? The diet should be high-fiber, so eliminate choices 1 and 3. Now since you are only comparing choices 2 and 4, address fluid intake—should it be adequate or restricted? Fluid intake should be adequate. Eliminate choice 4 and select 2 as the correct answer. Note how easy that question became by getting rid of what was superfluous and examining only one item at a time! Although the answer choices initially seemed full of information, you really only had to eliminate choices based on fiber and fluid intake. You will find that this strategy comes in handy when you see a lot of commas in the answer choices. With practice, it will become second nature to you. This strategy will save you a lot of time and eliminate confusion that could result in selecting the wrong answer.

## NCLEX Medical Terminology Review

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Understanding the medical terminology used on the NCLEX should be a top priority when preparing for the NCLEX. Medical terms can sometimes be confusing due to the use of medical abbreviations.

If you are unable to understand the medical terminology used on the NCLEX then you will have poor chance of picking the correct answer. Depending on your clinical rotations you may also be more familiar with certain medical terms in a specific area of nursing. Generally, nurses that have the broadest experience with medical terminology will have a better understanding to answer questions that contain complex medical terminology on the NCLEX test.

Take time to review the following abbreviations on the NCLEX test as well as a more thorough list as found in your textbooks.

- ADH    antidiuretic hormone  
AML    acute myelogenous leukemia  
APC    atrial premature contraction  
ASD    atrial septal defect

BPH	benign prostatic hypertrophy
BUN	blood, urea, nitrogen
Ca	calcium
CA	cancer
CAPD	continuous ambulatory peritoneal dialysis
CC	chief complaint
CPK	creatine phosphokinase
CRP	C-reactive protein
DIFF	differential blood count
DOE	dyspnea on exertion
D/W	dextrose in water
ECT	electroconvulsive therapy
ESRD	end stage renal disease
FUO	fever of undetermined origin
GH	growth hormone
GSC	glasgow coma scale
Hg	mercury
HLA	human leukocyte antigen
Hz	hertz
ICS	intercostal space
IPG	impedance plethysmogram
JRA	juvenile rheumatoid arthritis

Practicing nurses have the luxury of being able to look up medical abbreviations and definitions before making patient care decisions. However, the NCLEX test does not allow that option. **If you are confused by the medical terminology on the NCLEX, you will not be able to use a medical dictionary for reference purposes.**

## NCLEX Skeletal Muscle Review

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In order for the human being to carry out the many intricate movements that must be performed, approximately 650 skeletal muscles of various lengths, shapes, and strength play a part. Each muscle consists of many muscle cells or fibers held together and surrounded by connective tissue that gives functional integrity to the system. Three definite units are commonly referred to:

1. endomysium—connective tissue layer enveloping a single fiber;
2. perimysium—connective tissue layer enveloping a bundle of fibers;
3. epimysium—connective tissue layer enveloping the entire muscle

### Muscle Attachment and Function

For coordinated movement to take place, the muscle must attach to either bone or cartilage or, as in the case of the muscles of facial expression, to skin. The portion of a muscle attaching to bone is the tendon. A muscle has two extremities, its origin and its insertion.

## NCLEX Four Basic Tissues

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1. Muscle Tissue: Muscle tissue is contractile in nature and functions to move the skeletal system and body viscera.

Type	Characteristics	Location
Skeletal	Striated, voluntary	Skeletal muscles of the body
Smooth	Non-striated, involuntary	Walls of digestive tract and blood vessels, uterus, urinary bladder
Cardiac	Striated, involuntary	Heart

2. Nervous Tissue: Nervous tissue is composed of cells (neurons) that respond to external and internal stimuli and have the capability to transmit a message (impulse) from one area of the body to another. This tissue thus induces a response of distant muscles or glands, as well as regulating body processes such as respiration, circulation, and digestion.
3. Epithelial Tissue: Epithelial tissue covers the external surfaces of the body and lines the internal tubes and cavities. It also forms the glands of the body. Characteristics of epithelial tissue (epithelium) are that it
1. has compactly aggregated cells;
  2. has limited intercellular spaces and substance;
  3. is avascular (no blood vessels);
  4. lies on a connective tissue layer—the basal lamina;
  5. has cells that form sheets and are polarized;
  6. is derived from all three germ layers.

Microvilli—fingerlike projections of plasma membranes.

Cilia—motile organelles extending into the lumen consisting of specifically arranged microtubules.

Flagella—similar to cilia. Primary examples are human spermatozoa.

Stereocilia—are actually very elongated Microvilli.

4. Connective Tissue: Connective tissue is the packing and supporting material of the body tissues and organs. It develops from mesoderm (mesenchyme). All connective tissues consist of three distinct components: ground substance, cells and fibers.
- Ground substance. Ground substance is located between the cells and fibers, both of which are embedded in it. It forms an amorphous intercellular material. In the fresh state, it appears as a transparent and homogenous gel. It acts as a route for the passage of nutrients and wastes to and from the cells within or adjacent to the connective tissue.
  - Fibers. The fiber components of connective tissue add support and strength. Three types of fibers are present: collagenous, elastic and reticular.

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## NCLEX Cardiac Review

The heart is a highly specialized blood vessel which pumps 72 times per minute and propels about 4,000 gallons (about 15,000 liters) of blood daily to the tissues. It is composed of:

Endocardium (lining coat; epithelium)

Myocardium (middle coat; cardiac muscle)

Epicardium (external coat or visceral layer of pericardium; epithelium and mostly connective tissue)

Impulse conducting system

Cardiac Nerves: Modification of the intrinsic rhythmicity of the heart muscle is produced by cardiac nerves of the sympathetic and parasympathetic nervous system. Stimulation of the sympathetic system increases the rate and force of the heartbeat and dilates the coronary arteries. Stimulation of the parasympathetic (vagus nerve) reduces the rate and force of the heartbeat and constricts the coronary circulation. Visceral afferent (sensory) fibers from the heart end almost wholly in the first four segments of the thoracic spinal cord.

Cardiac Cycle: Alternating contraction and relaxation is repeated about 75 times per minute; the duration of one cycle is about 0.8 second. Three phases succeed one another during the cycle:

a) atrial systole: 0.1 second,

b) ventricular systole: 0.3 second,

c) diastole: 0.4 second

The actual period of rest for each chamber is 0.7 second for the atria and 0.5 second for the ventricles, so in spite of its activity, the heart is at rest longer than at work.

## NCLEX Lesion Review

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Occipital Lobe	Homonymous hemianopsia, partial seizures with limited visual phenomena
Thalamus	Contralateral thalamus pain, contralateral hemisensory loss
Pineal gland	Early hydrocephalus, papillary abnormalities, Parinaud's syndrome
Internal capsule	Hemisensory loss, homonymous hemianopsia, contralateral hemiplegia
Basal ganglia	Contralateral dystonia, Contralateral choreoathetosis
Pons	Diplopia, internal strabismus, VI and VII involvement, contralateral hemisensory and hemiparesis loss, ipsilateral cerebellar ataxia
Broca's area	Motor dysphasia
Precentral gyrus	Jacksonian seizures, generalized seizures, hemiparesis
Superficial parietal lobe	Receptive dysphasia

## NCLEX Tumor Review

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Primary Tumors

[www.pmcicareers.com](http://www.pmcicareers.com) 866-500-6274

- ◆ Neuromas- 80-90% of brain tumors, named for what part of nerve cell affected.
- ◆ Meningiomas- outside of arachnoidal tissue, usually benign and slow growing
- ◆ Glioblastoma Multiform-50% of all primary tumors, linked to specific genetic mutations

#### Secondary Tumors

- ◆ Metastatic carcinomas

Scale –degree of anaplasia: differentiation of mature (good) vs. immature cells (bad)

Grade I: up to 25% anaplasia

Grade II: 26-50% anaplasia

Grade III: 51-75% anaplasia

Grade IV: 76-100% anaplasia

#### Primary Tumor Effect:

1. Headaches
2. Vomiting

#### Secondary Tumor Effect:

1. Direct compression/necrosis
2. Herniation of brain tissue
3. Increase ICP

#### Noteworthy Tumor Markers

1. AFP
2. Alkaline phosphatase
3. b-hCG
4. CA-125
5. PSA

## NCLEX Movement Terms

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**Flexion is bending**, most often ventrally to decrease the angle between two parts of the body; it is usually an action at an articulation or joint.

**Extension is straightening**, or increasing the angle between two parts of the body; a stretching out or making the flexed part straight.

**Abduction is a movement away from the midsagittal plane** (midline); to adduct is to move medially and bring a part back to the mid-axis.

**Circumduction is a circular movement at a ball and socket** (shoulder or hip) joint, utilizing the movements of flexion, extension, abduction, and adduction.

Rotation is a movement of a part of the body around its long axis.

Supination refers only to the movement of the radius around the ulna. In supination the palm of the hand is oriented anteriorly; turning the palm dorsally puts it into pronation. The body on its back is in the supine position.

Pronation refers to the palm of the hand being oriented posteriorly. The body on its belly is the prone position.

**Inversion refers only to the lower extremity, specifically the ankle joint.** When the foot (plantar surface) is turned inward, so that the sole is pointing and directed toward the midline of the body and is parallel with the median plane, we speak of inversion. Its opposite is eversion.

Eversion refers to the foot (plantar surface) being turned outward so that the sole is pointing laterally.

Opposition is one of the most critical movements in humans; it allows us to have pulp-to-pulp opposition, which gives us the great dexterity of our hands. In this movement the thumb pad is brought to a finger pad. A median nerve injury negates this action.

NCLEX Cell Structure Review	Notes
<p>Endoplasmic Reticulum ( ER)</p> <p>This cellular organelle was first described using phase microscopy by Porter, Claude and Fallam in 1945. It is an extensive network of interconnecting channels. The endoplasmic reticular membranes are unit membranes (triminar). When ribosomes line the outer surface it is designated as rough endoplasmic reticulum ( RER). The primary form of this organelle is the rough variety. The smooth is derived from the rough due to loss of ribosomes. The amount of each depends on the cell type and the cellular activity.</p> <p>The RER is the synthetic machinery of the cell. It is mainly concerned with protein synthesis.</p> <p>The Golgi Complex</p> <p>This structure was discovered by Camillo Golgi in 1898. All eukaryotic cells, except for the red blood cell, possess a Golgi apparatus. Generally speaking the Golgi complex is prominent in glandular cells and is thought to function in the production, concentration packaging, and transportation of secretory material. IN summary one can link the Golgi complex to: secretion, membrane biogenesis, lysosome formation, membrane recycling, hormone modulation.</p> <p>Lysosome</p> <p>Lysosomes are described as containing proteolytic enzymes (hydrolases).Lysosomes contain acid phosphatase and other hydrolytic enzymes.. These enzymes are enclosed by a membrane and are released when needed into the cell or into phagocytic vesicles.</p>	

Lysosomal enzymes have the capacity to hydrolyze all classes of macromolecules.

A generalized list of substrates acted upon by respective enzymes is given below:

Lipids by lipases and phospholipases;

Proteins by proteases or peptidases;

Polysaccharides by glycosidases;

Nucleic acids by nucleases;

Phosphates ( organic-linked) by phosphatases;

Sulphates (organic-linked) by sulfatases.

## NCLEX Drug Distribution Review

Bioavailability dependant on several things:

1. Route of administration
2. The drug's ability to cross membranes
3. The drug's binding to plasma proteins and intracellular component

Membrane Review:

1. Membranes separate the body in components
2. The ability of membranes to act as barriers is related to its structure
3. Lipid Soluable compounds (many drugs) pass through by becoming dissolved in the lipid bylayer.
4. Glucose, H<sub>2</sub>O, electrolytes can't pass on their own. They use pores.
5. In excitable tissues, the pores open and close.
  1. Movement occurs by:
    2. passive diffusion
    3. active transport
    4. facilitated diffusion
    5. endocytosis

Passive Diffusion Review:

1. No energy expended.
2. Weak acids and bases need to be in non-ionized form (no net charge).
3. Drugs can also move between cell junctions. BBB is exception.
4. Must be lipid soluable to pass through pores.
5. Osmosis is a special case of diffusion
  1. A drug dissolved in H<sub>2</sub>O will move with the water by "bulk flow"
  2. Usually limited to movement through gap junctions because size too large for pores.

Notes

Active Transport Review:

1. Requires energy and requires a transport protein
2. Drugs must be similar to some endogenous substance.
3. Can carry substances against a gradient
4. Some drugs may exert their effect by increasing or decreasing transport proteins.

Facilitated Diffusion Review:

1. Requires transport protein
2. Does not require energy
3. Very few drugs move this way

Endocytosis:

1. Drug gets engulfed by cell via invagination
2. Very few drugs move this way and only in certain cells.

Regulation of distribution determined by:

1. Lipid permeability
2. Blood flow
3. Binding to plasma proteins
4. Binding to subcellular components

Volume of Distribution (Vd) - is a calculation of where the drug is distributed.

Vd = amount of drug given (mg)

concentration in plasma (mg/ml)

Calculate the Vd and compare to the total amount of body H<sub>2</sub>O in a person.

-if Vd = total amount of body (approx. 42) is uniformly distributed

-if Vd is less than 42 – retained in plasma and probably bound to plasma proteins

-if Vd is more than 42 – concentrated in tissues

This is not a “real value” but tells you where the drug is being distributed.

Placental Transfer of Drugs

1. Some drugs cause congenital anomalies
2. Cross placenta by simple diffusion
3. Must be polar or lipid-insoluble Not to Enter

- |  |  |
|--|--|
| 4. Must assume the fetus is subjected to all drugs taken by the mother to some extent. |  |
|--|--|

## NCLEX Cranial Nerve Review

### Pneumonic: On Old Olympus Towing Top A Fin And German Viewed A Hawk

- I-Olfactory-Smell                      II-Optic-Vision acuity                      III-Oculomotor – Eye function
- IV-Trochlear – Eye function                      V-Trigeminal – Sensory of the face, chewing
- VI-Abducens – Eye function                      VII-Facial – Facial expression, wrinkle forehead, taste anterior tongue
- VIII-Vestibulocochlear – Auditory acuity, balance and postural responses
- IX-Glossopharyngeal – Taste on posterior 33% of the scale
- X-Vagus – Cardiac, respiratory reflexes
- XI-Spinal Accessory - Strength of trapezius and Sternocleidomastoid muscles
- XII-Hypoglossal – Motor function of the tongue

## NCLEX Cholinomimetics

### 1. Muscarinic Agonists

- A. Bethanecol (URECHOLINE) – increase GI motility
- B. Carbachol (ISOPTO, MIOSTAT, CARBACHOL) – various types of glaucoma
- C. Methacholine (PROVOCHOLINE) – test hyperactivity of airways
- D. Pilocarpine – used for glaucoma

### 2. Anticholinesterases

- A. Pysostigmine (ANTILIRIUM) – treat glaucoma, crosses BBB, reverse anticholinergic toxicity.
- B. Neostigmine (PROSTIGMIN) – synthetic form of Pysostigmine

(Anticholinesterases) – used for Myasthenia gravis, glaucoma, and to increase tone in bladder

Symptoms of Anticholinesterase toxicity:

- 1. Miosis
- 2. Rhinitis
- 3. Bradycardia
- 4. GI spasms
- 5. bronchoconstriction
- 6. involuntary voiding of urine

**NCLEX Practice Questions 1-10** – Using the strategies you've learned answer the following questions. Remember to eliminate wrong answers first and CAREFULLY read and then re-read the questions looking for special words: *most important, always, initially, does NOT, only, most likely, NOT correct, NOT associated with, PRIMARY responsibility, highest, least, best and similar words that are there to make the question very specific.* Also look for ages, person's sex, diagnosis, pregnancy, and situations( a CRUSHED leg for example – they are using the word CRUSHED for a reason – it sounds pretty serious) These scenarios and words are there to test your knowledge of something specific – like drugs that should not be given to pregnant women. Be careful and use the strategies. Check your answers at the end of each set of 10 questions.

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1. A nurse is reviewing a patient's medication during shift change. Which of the following medications would be contraindicated if the patient were pregnant? Note: More than one answer may be correct.

- A: Coumadin
- B: Finasteride
- C: Celebrex
- D: Catapres
- E: Habitrol
- F: Clofazimine

2. A nurse is reviewing a patient's PMH. The history indicates photosensitive reactions to medications. Which of the following drugs has not been associated with photosensitive reactions? Note: More than one answer may be correct.

- A: Cipro
- B: Sulfonamide
- C: Noroxin
- D: Bactrim
- E: Accutane
- F: Nitrofur

3. A patient tells you that her urine is starting to look discolored. If you believe this change is due to medication, which of the following patient's medication does not cause urine discoloration?

- A: Sulfasalazine
- B: Levodopa
- C: Phenolphthalein
- D: Aspirin

4. You are responsible for reviewing the nursing unit's refrigerator. If you found the following drug in the refrigerator it should be removed from the refrigerator's contents?

- A: Corgard
- B: Humulin (injection)
- C: Urokinase
- D: Epogen (injection)

5. A 34 year old female has recently been diagnosed with an autoimmune disease. She has also recently discovered that she is pregnant. Which of the following is the only immunoglobulin that will provide protection to the fetus in the womb?

- A: IgA
- B: IgD

C: IgE

D: IgG

6. A second year nursing student has just suffered a needlestick while working with a patient that is positive for AIDS. Which of the following is the **most important action** that nursing student should take?

A: Immediately see a social worker

B: Start prophylactic AZT treatment

C: Start prophylactic Pentamidine treatment

D: Seek counseling

7. A thirty five year old male has been an insulin-dependent diabetic for five years and now is unable to urinate. Which of the following would you **most likely** suspect?

A: Atherosclerosis

B: Diabetic nephropathy

C: Autonomic neuropathy

D: Somatic neuropathy

8. You are taking the history of a 14 year old girl who has a (BMI) of 18. The girl reports inability to eat, induced vomiting and severe constipation. Which of the following would you **most likely** suspect?

A: Multiple sclerosis

B: Anorexia nervosa

C: Bulimia

D: Systemic sclerosis

9. A **24 year old** female is admitted to the ER for confusion. This patient has a history of a myeloma diagnosis, constipation, intense abdominal pain, and polyuria. Which of the following would you **most likely** suspect?

A: Diverticulosis

B: Hypercalcaemia

C: Hypocalcaemia

D: Irritable bowel syndrome

10. Rho gam is **most often** used to treat \_\_\_\_\_ mothers that have a \_\_\_\_\_ infant.

A: RH positive, RH positive

B: RH positive, RH negative

C: RH negative, RH positive

D: RH negative, RH negative

Answer Key – **Answer first before checking!!!!**

1. (A) and (B) are both contraindicated with pregnancy.

2. (F) All of the others have can cause photosensitivity reactions.

3. (D) All of the others can cause urine discoloration.

4. (A) Corgard could be removed from the refrigerator.

5. (D) IgG is the only immunoglobulin that can cross the placental barrier.

6. (B) AZT treatment is the most critical intervention.

7. (C) Autonomic neuropathy can cause inability to urinate.

8. (B) All of the clinical signs and systems point to a condition of anorexia nervosa.

9. (B) Hypercalcaemia can cause polyuria, severe abdominal pain, and confusion.

10. (C) Rho gam prevents the production of anti-RH antibodies in the mother that has a Rh positive fetus.

## NCLEX Practice Questions 11-20

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11. A **new mother** has some questions about (PKU). Which of the following statements made by a nurse is **not correct** regarding PKU? (*here there are three RIGHT answers and you need to pick the WRONG answer – this is where the wrong answer is right – again READ the question*)

- A: A Guthrie test can check the necessary lab values.
- B: The urine has a high concentration of phenylpyruvic acid
- C: Mental deficits are often present with PKU.
- D: The effects of PKU are reversible.

12. A patient has **taken an overdose of aspirin**. Which of the following should a nurse **most closely** monitor for during acute management of this patient?

- A: Onset of pulmonary edema
- B: Metabolic alkalosis
- C: Respiratory alkalosis
- D: Parkinson's disease type symptoms

13. A **fifty-year-old blind and deaf** patient has been admitted to your floor. As the charge nurse your **primary responsibility** for this patient is? (*what is the MOST important thing to do – your primary responsibility for this patient*)

- A: Let others know about the patient's deficits.
- B: Communicate with your supervisor your patient safety concerns.
- C: Continuously update the patient on the social environment.
- D: Provide a secure environment for the patient.

14. A patient is getting discharged from a SNF facility. The patient has a history of severe COPD and PVD. The patient is primarily concerned about their ability to breath easily. Which of the following would be the **best instruction** for this patient?

- A: Deep breathing techniques to increase O2 levels.
- B: Cough regularly and deeply to clear airway passages.
- C: Cough following bronchodilator utilization
- D: Decrease CO2 levels by increase oxygen take output during meals.

15. A nurse is caring for an infant that has recently been diagnosed with a congenital heart defect. Which of the following clinical signs **would most likely** be present?

- A: Slow pulse rate
- B: Weight gain
- C: Decreased systolic pressure
- D: Irregular WBC lab values

16. A mother has recently been informed that her child has Down's syndrome. You will be assigned to care for the child at shift change. Which of the following characteristics is **not associated** with Down's syndrome? (*here you a choosing the ONE thing that is NOT associated with Down's syndrome*)

- A: Simian crease
- B: Brachycephaly

C: Oily skin

D: Hypotonicity

17. A patient has recently experienced a (MI) within the last 4 hours. Which of the following medications would **most likely** be administered?

A: Streptokinase

B: Atropine

C: Acetaminophen

D: Coumadin

18. A patient asks a nurse, "My doctor recommended I increase my intake of folic acid. What type of foods contain the **highest** concentration of folic acids?"

A: Green vegetables and liver

B: Yellow vegetables and red meat

C: Carrots

D: Milk

19. A nurse is putting together a presentation on meningitis. Which of the following microorganisms has **not been** linked to meningitis in humans?

A: S. pneumonia

B: H. influenza

C: N. meningitis

D: Cl. difficile

20. A nurse is administering blood to a patient who has a low hemoglobin count. The patient asks how long to RBC's last in my body? The **correct** response is.

A: The life span of RBC is 45 days.

B: The life span of RBC is 60 days.

C: The life span of RBC is 90 days.

D: The life span of RBC is 120 days.

Answer Key 11-20.

11. (D) The effects of PKU stay with the infant throughout their life.

12. (D) Aspirin overdose can lead to metabolic acidosis and cause pulmonary edema development.

13. (D) This patient's safety is your primary concern.

14. (C) The bronchodilator will allow a more productive cough.

15. (B) Weight gain is associated with CHF and congenital heart deficits.

16. (C) The skin would be dry and not oily.

17. (A) Streptokinase is a clot busting drug and the best choice in this situation.

18. (A) Green vegetables and liver are a great source of folic acid.

19. (D) Cl. difficile has not been linked to meningitis.

20. (D) RBC's last for 120 days in the body.

## NCLEX Practice Questions 21-30

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21. A **65 year old man** has been admitted to the hospital for **spinal stenosis surgery**. When does the discharge training and planning begin for this patient? (*Here they are testing your knowledge of discharge planning – start eliminating the WRONG answers*)

A: Following surgery

B: Upon admit

C: Within 48 hours of discharge

D: Preoperative discussion

22. A **child is 5** years old and has been recently admitted into the hospital. According to Erickson which of the following stages is the child in? (*Here they are testing your knowledge of Erickson*)

A: Trust vs. mistrust

B: Initiative vs. guilt

C: Autonomy vs. shame

D: Intimacy vs. isolation

23. A **toddler is 16 months old** and has been recently admitted into the hospital. According to Erickson which of the following stages is the toddler in?

A: Trust vs. mistrust

B: Initiative vs. guilt

C: Autonomy vs. shame

D: Intimacy vs. isolation

24. A **young adult is 20 years** old and has been recently admitted into the hospital. According to Erickson which of the following stages is the adult in?

A: Trust vs. mistrust

B: Initiative vs. guilt

C: Autonomy vs. shame

D: Intimacy vs. isolation

25. A nurse is making rounds taking vital signs. Which of the following vital signs **is abnormal**?

A: 11 year old male – 90 b.p.m, 22 resp/min. , 100/70 mm Hg

B: 13 year old female – 105 b.p.m., 22 resp/min., 105/60 mm Hg

C: 5 year old male- 102 b.p.m, 24 resp/min., 90/65 mm Hg

D: 6 year old female- 100 b.p.m., 26 resp/min., 90/70mm Hg

26. When you are taking a patient's history, she **tells you she has been depressed** and is dealing with an anxiety disorder. Which of the following medications would the patient **most likely** be taking? (*here they are testing your knowledge of the anti-depressants – eliminate those that are not*)

A: Elavil

B: Calcitonin

C: Pergolide

D: Verapamil

27. Which of the following conditions would a nurse **not** administer erythromycin?

A: Campylobacterial infection

B: Legionnaire's disease

C: Pneumonia

D: Multiple Sclerosis

28. A patient's chart indicates a **history of hyperkalemia**. Which of the following would you **not** expect to see with this patient if this condition were acute?

- A: Decreased HR
- B: Paresthesias
- C: Muscle weakness of the extremities
- D: Migranes

29. A patient's chart indicates a history of **ketoacidosis**. Which of the following would you **not** expect to see with this patient if this condition were acute?

- A: Vomiting
- B: Extreme Thirst
- C: Weight gain
- D: Acetone breath smell

30. A patient's chart indicates a history of meningitis. Which of the following would you **not** expect to see with this patient if this condition were **acute**? (start eliminating the things that ARE associated with acute meningitis)

- A: Increased appetite
- B: Vomiting
- C: Fever
- D: Poor tolerance of light

Answer Key 21-30. **DON'T PEAK**

- 21. (B) Discharge education begins upon admit.
- 22. (B) Initiative vs. guilt- 3-6 years old
- 23. (A) Trust vs. Mistrust- 12-18 months old
- 24. (D) Intimacy vs. isolation- 18-35 years old
- 25. (B) HR and Respirations are slightly increased. BP is down. (a 13 year old has VS similar to a young adult)
- 26. (A) Elavil is a tricyclic antidepressant.
- 27. (D) Erythromycin is used to treat conditions A-C.
- 28. (D) Answer choices A-C were symptoms of acute hyperkalemia.
- 29. (C) Weight loss would be expected.
- 30. (A) Loss of appetite would be expected.

## NCLEX Practice Questions 31-40

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31. A nurse is reviewing a patient's chart and notices that the patient suffers from **conjunctivitis**. Which of the following microorganisms is related to this condition?

- A: Yersinia pestis
- B: Helicobacter pylori
- C: Vibrio cholera
- D: Hemophilus aegyptius

32. A nurse is reviewing a patient's chart and notices that the patient suffers from **Lyme disease**. Which of the following microorganisms is related to this condition?

- A: Borrelia burgdorferi
- B: Streptococcus pyogenes
- C: Bacillus anthracis
- D: Enterococcus faecalis

33. A fragile 87 year-old female has recently been admitted to the hospital with increased confusion and falls over last 2 weeks. She is also noted to have a mild left hemiparesis. Which of the following tests is most likely to be performed? (which of these would be the most important of ALL of the tests – they would probably run all of these on her – but WHICH one would contribute most to her diagnosis)

- A: FBC (full blood count)
- B: ECG (electrocardiogram)
- C: Thyroid function tests
- D: CT scan

34. A 84 year-old male has been loosing mobility and gaining weight over the last 2 months. The patient also has the heater running in his house 24 hours a day, even on warm days. Which of the following tests is most likely to be performed? (What do these symptoms indicate might be wrong with him? Which test would prove or disprove that diagnosis?)

- A: FBC (full blood count)
- B: ECG (electrocardiogram)
- C: Thyroid function tests
- D: CT scan

35. A 20 year-old female attending college is found unconscious in her dorm room. She has a fever and a noticeable rash. She has just been admitted to the hospital. Which of the following tests is most likely to be performed first? (She has a fever, a rash and is unconscious – all of these tests would probably be run – but what test would confirm your initial suspicion based on her symptoms of FEVER, RASH and loss of consciousness?)

- A: Blood sugar check
- B: CT scan
- C: Blood cultures
- D: Arterial blood gases

36. A 28 year old male has been found wandering around in a confused pattern. The male is sweaty and pale. Which of the following tests is most likely to be performed first?

- A: Blood sugar check
- B: CT scan
- C: Blood cultures
- D: Arterial blood gases

37. A mother is inquiring about her child's ability to potty train. Which of the following factors is the most important aspect of toilet training?

- A: The age of the child
- B: The child ability to understand instruction.
- C: The overall mental and physical abilities of the child.
- D: Frequent attempts with positive reinforcement.

38. A parent calls the pediatric clinic and is frantic about the bottle of cleaning fluid her child drank 20 minutes ago. Which of the following is the most important instruction the nurse can give the parent?

- A: This too shall pass.
- B: Take the child immediately to the ER
- C: Contact the Poison Control Center quickly
- D: Give the child syrup of ipecac

39. A nurse is administering a shot of Vitamin K to a 30 day-old infant. Which of the following target areas is the most appropriate?

- A: Gluteus maximus
- B: Gluteus minimus
- C: Vastus lateralis
- D: Vastus medialis

40. A nurse has just started her rounds delivering medication. A new patient on her rounds is a 4 year-old boy who is non-verbal. This child does not have on any identification. What should the nurse do?

- A: Contact the provider
- B: Ask the child to write their name on paper.
- C: Ask a co-worker about the identification of the child.
- D: Ask the father who is in the room the child's name.

Answer Key 31-40. Even if you are tempted – don't peek before you answer

- 31. (D) Choice A is linked to Plague, Choice B is linked to peptic ulcers, Choice C is linked to Cholera.
- 32. (A) Choice B is linked to Rheumatic fever, Choice C is linked to Anthrax, Choice D is linked to Endocarditis.
- 33. (D) A CT scan would be performed for further investigation of the hemiparesis.
- 34. (C) Weight gain and poor temperature tolerance indicate something may be wrong with the thyroid function.
- 35. (C) Blood cultures would be performed to investigate the fever and rash symptoms.
- 36. (A) With a history of diabetes, the first response should be to check blood sugar levels.
- 37. (C) Age is not the greatest factor in potty training. The overall mental and physical abilities of the child is the most important factor.
- 38. (C) The poison control center will have an exact plan of action for this child.
- 39. (C) Vastus lateralis is the most appropriate location.
- 40. (D) In this case you are able to determine the name of the child by the father's statement. You should not withhold the medication from the child following identification.

### Common Medications (this was created by a PMCI VN student)

<u>Trade</u>	<u>Generic</u>	<u>Classification</u>
Tylenol	Acetaminophen	Non-Narcotic Analgesic
Aloprim	Allopurinol	Antigout
Humulin R	Regular insulin	Antidiabetic – fast acting
Alupent	Metaproterenol sulfate	Bronchodilator
Amoxil	Amoxicillin trihydrate	Antibiotic
Lantis Insulin	Insulin	Antidiabetic – long acting
Principen	Ampicillin	Antibiotic
Vitamin C	Ascorbic acid	Vitamin

NPH Insulin	Aka humulin H	Antidiabetic – long acting
Bayer	Asprin	NSAID, anticoagulant, non-narc analgesic
Ativan	Lorazepam	Benzodiazepine -Antianxiety
Isochron	Isosorbid nitrates	Nitrate - antianginal
Heparin is the trade name	Heparin	Anticoagulant
Bactrim	Trimethoprim and sulfamethoxazole	Antibiotic
Keflex	Cephalexin	Antibiotic
Benadryl	Diphenhydramine HCl	Antihistamine
Calcium		Mineral
Lasix	Furosemide	Loop diuretic
Somnote	Chloral Hydrate	Sedative-hypnotic
Soma	Carisoprodol	Skeletal muscle relaxant
Dopar	Levodopa (L-dopa)	Antiparkinsonian
Codeine	Codeine phosphate	Narcotic analgesic
Colace	Docusate Na	Stool softener
Levaquin	Levofloxacin	Antibiotic
Compazine	Prochlorperazine	Antipsychotic, antiemetic
Coumadin	Warfarine Na	anticoagulant
Lithobid	Lithium	Antipsychotic – treatment of bipolar disorder
Dalmane	Flurazepam HCl	Benzodiazepine, sedative
Darvocet N	Propoxyphene	Opioid agonist analgesic- narcotic analgesic is OK
Methicillin	Meticillin	Antibiotic
Decadron	Dexamethasone	Hormone, anti-inflammatory

Demerol	Meperidine HCl	Opioid agonist analgesic
MOM	Magnesium salts	Laxative
Valium	Diazepam	Skeletal muscle relaxant, also antianxiety
Digitex, Lanoxin	Digoxin	Cardiotonic
Avinza	Morphine sulfate	Opioid agonist analgesic
Dilantin-125	Phenytoin	Antiepileptic
Haldol	Haloperidol	Antipsychotic
Procardia	Nifedipine	Antihypertensive
Eryc	Erythromycin	Macrolide antibiotic – Antibiotic is OK
Feosol	Ferrous Salts	Iron Preparation - mineral
Principen	Ampicillin	Antibiotic
Flagyl	Metronidazole	Antibiotic – Anti viral
Flexeril	Cylobenzaprine HCl	Skeletal muscle relaxant
Percodan	Oxycodone and aspirin	Opioid Analgesic
Glucotrol	Glipizide	Antidiabetic
Halcion	Triazolam	Benzodiazepine, sedative hypnotic
Synthroid	Levothyroxine Na	Thyroid Hormone

## Term 2 Meds

Trade	Generic	Classification
Allegra	Fexofenadine HCl	Antihistamine
Brethin	Terbutaline sulfate	Bronchodilator

Lopid	Gemfibrozol	Antihyperlipidemic
Naprosyn	Naproxen	NSAID
Narcqan <b>NARCAN</b>	Naloxone HCl	Opioid antagonist
Nitrostat	Nitroglycerin	Nitrate, <b>antianginal</b>
Zithromax	Azithromycin	Macrolide antibiotic
Cipro	Ciprofloxacin	Antibacterial
Sumycin	Tetracycline HCl	Antibiotic
Klonopin	Clonazepam	Antiepileptic
Tegretol	Carbamazepine	Antiepileptic
Lopressor	Metoprolol	Antihypertensive
Aldactone	Spirolactone	K-sparing diuretic
Augmentin	Amoxicillin and clavulanic acid	Antibiotic
Epi-pen	Epinephrine	Bronchodilator
Xylocaine HCL	Lidocaine HCl	Local Anesthetic
Raniclor	Cefaclor	Antibiotic
Lortab	Hydrocone and acetaminophen	Opioid analgesic
Vistaril	Hydroxyzine	Antihistamine
Inderal	Propranolol HCl	Antihypertensive
K-dur ( <b>most common</b> )	Potassium	<b>Electrolyte</b>
Prinivil	Lisinopril	Antihypertensive
Biaxin	Clarithromycin	Macrolide antibiotic
Reglan	Metoclopramide	Antiemetic
Bellatal	Phenobarbital	Barbiturate

Plavix	Clopidogrel	Antiplatelet - anticoagulant
Covera-HS	Verapamil HCl	Antihypertensive
	Oxacillin	Antibiotic
Diabinase	Chlorpropamide	Antidiabetic
Neo-fradin Neocyn	Neomycin Sulfate	antibiotic
Diabeta	Glyburide	Antidiabetic
Zantac	Ranitidine HCl	Histamine antagonist
Feldene	Piroxicam	NSAID
Nubian	Nalbuphine HCl	Opioid agonist antagonist analgesic
Depo-Provera	Medroxyprogesterone acetate	Hormone
Cleocin	Clindamycin	Lincosamide antibiotic
Humalog	Insulin	Antidiabetic
Novolin 70/30	Insulin	Antidiabetic – long acting
Dilaudid	Hydromorphone Hcl	Opioid agonist analgesic
Vitamin B 12		Vitamin
Thorazine	Chlorpromazine HCl	Antipsychotic

Term 3

Trade	Generic	Classification
Seconal Na	Secobarbital Na	Barbiturate – sedative hypnotic
Nembutal	Pentobarbital	Barbiturate – sedative hypnotic
Medrol, Solu-Medrol	Methylprednisolone	Hormone – anti-inflammatory use – usually respiratory
Bronkadyl	Theophylline	Bronchodilator

Toradol	Ketorolac tromethamine	NSAID
Droperidol	Inaspine	General anesthetic
Carafate	Sucralfate	Antiulcer drug
Ceptaz	Ceftazidime	Antibiotic
Prozac	Fluoxetine HCl	Antidepressant
Zoloft	Sertraline HCl	Antidepressant
Cardizem	Diltiazem HCl	Antihypertensive
Revimine	Dopamine HCl	Dopaminergic/ antiparkinson
Unasyn	Ampicillin and sulbactam	Antibiotic
Unipen	Nafcillin	Antibiotic
Accupril	Quinapril HCl	Antihypertensive
Quaalude	Methaqualone	CNS stimulant
Vitamin K		Vitamin – for clotting – antidote for anti-coagulant overdose.
Pronestyl	Procainamide	Antiarrhythmics
Truphylline	Aminophylline	Bronchodilators
Isordil	Isosorbide	Antianginals/nitrates
Apresoline	Hydralazine	Antihypertensives/vasodilators
Protonix	Pantoprazole	Proton pump inhibitors – antacid (major)
Catapres	Clonidine	Antihypertensive
Paxil	Paroxetine HCl	Antidepressant
Cannabis	Marijuana	Depressant, hallucinogen
Effexor	Venlafaxine	Antidepressant
Estrogen	Estradiol	Hormone

Methamphetamine	Meth	Stimulant
Cocaine	Crack	Stimulant
Naprosyn	Naproxen	NSAID
Advil	Motrine	NSAID
Ritalin	Methyphenidate	CNS stimulant
Zantryl	Phentermine	Appetite suppressant
Tagamet	Cimetidine	Histamine antagonist
Cillium	Psyllium	Bulk forming agent
Senokot	Sennoside	Laxative
Glucagen	Glucagons	Hormone
Testosterone		Hormone

Term 4

Acutane	Isootretinoin	Vitamin
Folate	Folic Acide	Vitamin supplement
Clomid	Clomiphene citrate	Hormone – ovary stimulant
Addreall	Amphetamine mix	CNS stimulant
Depo-Prevera	Medroxyhydrogesterone acutate	Hormone
Pitocin	Oxytocin	Hormone - pregnancy
Methergine	Methylergonovine Malate	Oxytocin
Triamenic	Chlorpheniramine maleate	Antihistamine
Nardol	Phenelzine sulfate	Antidepressant
Viagra	Sildenafil Citrate	Impotence drug
Lexapro	Escitalopram oxalate	Antidepressant
Palmerol	Nortriptyline	Antidepressant

Sinequan	Doxepine HCl	Antidepressant
Soltamox	Tamoxifen Citrate	Antiestrogen
Herceptin	Trastuzumab	Antineoplastic
Bactrim	Trimethoprim and Sulfamethoxazole	Antibacterial
Cephapirin	Cefadyl	Antibiotic
Rattle snake antivenom	Crotalidae polyvalent and ezvine	Antivenom/antidote
Compazine	Prochlorperazine	Antipsychotic - antiemetic
Crinone	Progesterone	Hormone
Somatrem	Growth Hormone	Hormone
Prolastin	Alpha proteinase inhibitor	Enzyme inhibitors
Platino-AQ	Cisplatin	Antineoplastic
RhoGam	Rho(D) immune Globin	Immune globin
Ipol	Polio Vaccine	Vaccine
Recombivax HP	Hep B Vaccine	Vaccine
MMR2	MMR vaccine	Vaccine
Imodium	Leperamide hcl	anti-diarheal medication
MgSO4	Magnesium sulfate	Mineral and electrolyte
Lidoderm	Lidocane	Local anesthetic
Nilstat	Nystatin	Antifungal
Capoten	Captopril	Antihypertensive
Xanax	Alprozdam	Benzodizepine - antianxiety

## LAB Values

It is important to know both abnormal and normal lab values. It's also important to know the common signs and symptoms of high and low values of the most common electrolytes. Know why a lab test is usually given. They are given to rule out or make a diagnosis. The signs and symptoms of a client often dictate which test would be the MOST important to evaluate to either confirm or rule out a diagnosis based solely on the signs and symptoms. For instance if a patient has a fever and a rash and was found unconscious this is a major symptom of a serious infection – perhaps septicemia. The most important test would be blood cultures to either confirm or rule out septicemia. If an ordinarily young person is confused, sweaty and lethargic – these are symptoms of diabetes – the main test that would be used to rule out or confirm diabetes would be a blood sugar or blood glucose test. This is where your knowledge of lab tests will benefit you on the NCLEX PN. Following are some normal lab values. Write in the S/S of low and high values. This will help you on the NCLEX PN – there will be LAB questions on both the Exit and NCLEX.

## Normal Lab Values

<b>Albumin</b>	3.2 - 5 g/dl	
Alkaline phosphatase (Adults: 25-60)	33 - 131 IU/L	
Adults > 61 yo:	51 - 153 IU/L	
Ammonia	20 - 70 mcg/dl	
<b>Bilirubin, direct</b>	0 - 0.3 mg/dl	
<b>Bilirubin, total</b>	0.1 - 1.2 mg/dl	
<b>Blood Gases</b>		
	<b>Arterial</b>	<b>Venous</b>
<b>pH</b>	7.35 - 7.45	7.32 - 7.42
<b>pCO<sub>2</sub></b>	35 - 45	38 - 52
pO <sub>2</sub>	70 - 100	28 - 48
HCO <sub>3</sub>	19 - 25	19 - 25
<b>O<sub>2</sub> Sat %</b>	90 - 95	40 - 70
<b>BUN</b>	7 - 20 mg/dl	
<b>Complete blood count (CBC) Adults</b>		
	Male	Female

Hemoglobin (g/dl)	13.5 - 16.5	12.0 - 15.0
Hematocrit (%)	41 - 50	36 - 44
RBC's ( x 10 <sup>6</sup> /ml)	4.5 - 5.5	4.0 - 4.9
RDW (RBC distribution width)	< 14.5	
MCV	80 - 100	
MCH	26 - 34	
MCHC %	31 - 37	
Platelet count	100,000 to 450,000	
<b>Creatinine kinase (CK) isoenzymes</b>		
CK-BB	0%	
CK-MB (cardiac)	0 - 3.9%	
CK-MM	96 - 100%	
Creatine phosphokinase (CPK)	8 - 150 IU/L	
Creatinine (mg/dl)	0.5 - 1.4	
<b>Electrolytes</b>		
Calcium	8.8 - 10.3 mg/dL	
Calcium, ionized	2.24 - 2.46 meq/L	
Chloride	95 - 107 mEq/L	
Magnesium	1.6 - 2.4 mEq/L	
Phosphate	2.5 - 4.5 mg/dL	
Potassium	3.5 - 5.2 mEq/L	
Sodium	135 - 147 mEq/L	
Ferritin (ng/ml)	13 - 300	
Folate (ng/dl)	3.6 - 20	
Glucose, fasting (mg/dl)	60 - 110	

Glucose (2 hours postprandial) (mg/dl)	Up to 140
Hemoglobin A <sub>1c</sub>	6 - 8
Iron (mcg/dl)	65 - 150
Lactic acid (meq/L)	0.7 - 2.1
LDH (lactic dehydrogenase)	56 - 194 IU/L
<b>Lipoproteins and triglycerides</b>	
<b>Cholesterol, total</b>	< 200 mg/dl
HDL cholesterol	30 - 70 mg/dl
LDL cholesterol	65 - 180 mg/dl
Triglycerides	45 - 155 mg/dl (< 160)
Osmolality	289 - 308 mOsm/kg
SGOT (AST)	< 35 IU/L (20-48)
SGPT (ALT)	<35 IU/L
<b>Thyroid Function tests</b>	
Free T3	2.3-4.2 pg/ml
Serum T3	70-200 ng/dl
Free T4	0.5-2.1 ng/dl
Serum T4	4.0-12.0 mcg/dl
TSH	0.25-4.30 microunits/ml
Total iron binding capacity (TIBC)	250 - 420 mcg/dl
Transferrin	> 200 mg/dl
Uric acid (male)	2.0 - 8.0 mg/dl
(female)	2.0 - 7.5 mg/dl
<b>WBC + differential</b>	
<b>WBC (cells/ml)</b>	4,500 - 10,000

Segmented neutrophils	54 - 62%
Band forms	3 - 5% (above 8% indicates left shift)
Basophils	0 - 1 (0 - 0.75%)
Eosinophils	0 - 3 (1 - 3%)
lymphocytes	24 - 44 (25 - 33%)
Monocytes	3 - 6 (3 - 7%)

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