



DRUG HANDBOOK

A Nursing Process Approach

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Assessment: Focusing data collection on the medication regimen

Focus Assessment

Performing a nursing assessment that focuses on gathering specific data about an individual's medication regimen includes gathering two types of information:

- 1 Information about the **person** to receive the medications
- 2 Information about the **medications**

Information about the person to receive the medications must be obtained from a complete nursing assessment. This includes gathering **subjective data** (what the patient **states**) by interviewing the patient and significant others, and gathering **objective data** (what you **observe**) by performing a physical examination and reviewing results of diagnostic studies. Additional information may be obtained by reviewing previous medical records, especially medication records.

Information about drugs is usually gathered from the literature (pharmacology references, package inserts) and from consultations with experts (nurses, pharmacists, physicians). Let's take a look at how to gain accurate, pertinent data about both medications and the people who will be taking them.

The Interview:

Asking the right questions

A focused, in-depth nursing interview is essential to determining how to safely and effectively administer medications. Each individual is unique and is likely to have a personal viewpoint concerning taking medications. Some people view medications as "fix-it pills"—they believe medicines can fix anything, and "the more you take the better." Others view them as poisons that should be avoided as long as "you're not feeling bad."

Taking the time to have an open and honest discussion about how your patients **take** medications and how they **feel** about taking them can make the difference between success and failure. It will help you to get to know your

patients as individuals, which will be valuable later when you are determining how they are responding to their medications. Early warning signs of complications due to the prescribed medications may come in the form of very subtle changes: changes that may be so subtle that only someone who knows the person will notice. It is also not unusual for patients to be the first to sense that something is not "quite right." Establishing a good rapport makes it easier for them to communicate uneasy feelings. You, as the nurse, will then be alerted to look for signs and symptoms that indicate there may be a problem.

Keeping in mind the importance of performing a focused, in-depth interview, the following offers guidelines for asking questions that focus on gathering data about the individual's medication regimen.

Guidelines:

Focusing the interview on taking medications

- 1 **Take the time to get to know the person.** People are more open when they feel more at ease. Include a family member or significant other in discussions about the medication regimen. In emergency situations, obtain a minimum history of allergies and current medications.
- 2 **Explain that the purpose of the interview is to discuss how the person feels he or she reacts to medications** (what works, what doesn't work) so best therapeutic effects can be attained.
- 3 **Explore the person's lifestyle and how it might be affected by taking medications.** Examine diet, occupation, daily activities, religion, recreation, responsibilities, family, friends, sense of well-being, and financial and spiritual resources.
- 4 **Determine history of present and past illnesses.**
- 5 **Examine present and past medication history:**

- ♦ **Ask about allergies or adverse reactions to medications.** If these are reported, ask for a description of what happened.
 - ♦ **Assess knowledge of current medications:** what is taken and why, what dose is taken, who prescribed the medication(s), how doses are taken, whether the medications are working, and whether there are any side effects. Be sure to include questions about over-the-counter (OTC) medicines, as well as holistic or folk remedies. If there is a written record of the medications, ask to see this. If there is *any* doubt about the patient's reliability, have a family member bring in medications from home.
 - ♦ *Be aware that if there is more than one prescribing physician, there is a greater risk of drug interactions and incompatibilities. One physician may be unaware that another physician is also prescribing for the patient.*
 - ♦ **Determine past medications.** Ask the same questions about past medications as you did about current medications.
 - ♦ **Ask how the individual feels about taking medicines** and whether taking them will interfere with daily lifestyle.
- 6 For women of child-bearing age, determine whether there is a possibility of pregnancy or if the woman is currently lactating.** Many drugs taken by mothers affect fetal development or nursing infants because they cross the placenta or are present in the breast milk.
 - 7 Terminate the interview by summarizing what has been discussed and by encouraging the person to voice opinions, ask questions, and let you know how he or she is feeling.**
- ♦ **Interviewing children**
 - 1 Establish a rapport with parents and child.** Children often need more time to establish trust.
 - 2 Interview parents and child together, then ask additional questions separately.** This can provide information about how the parents and child interact, and can allow expression of different points of view.
 - 3 Use terminology that the child can understand.**
 - 4 Consider use of play therapy or role play** to encourage the child to relate his or her feelings about taking medications.

- 5 Determine techniques or aids that can be used at home to facilitate taking medications.**
- ♦ **Interviewing the elderly**
 - 1 Ascertain that the person can hear what you are saying.** Many elderly people suffer some degree of hearing loss.
 - 2 Ensure that necessary visual and hearing aids are being worn.**
 - 3 Provide plenty of light and minimize noise.**
 - 4 If the person seems confused, talk slowly and use simple terms.**
 - 5 Determine the most frequent caregivers.** Try to interview both the person and the caregivers together, then separately. Allow for varying points of view and for assessment of patient-caregiver interaction.
 - 6 Determine the names of all attending physicians.** The elderly often have multiple system problems and may have several prescribing physicians.
 - 7 Identify strategies or products that can be used at home to guard against forgetting to take medications.**

The Physical Exam:

Assessing physical status

Since drugs are chemicals that will alter how the body functions, it is vital that you complete a physical examination and review diagnostic studies before starting any medication regimen. This **baseline physical examination** is necessary to be sure that the medication is indeed indicated and that there are **no contraindications** to its administration; it also helps identify potential problems and clearly assess changes after administering the medication. When patients are unable to communicate, their physical status is a key factor in determining beneficial or adverse medication effects. The following guidelines will help you to focus the physical examination and review of diagnostic studies and to gather the data that is pertinent to medication administration.

Guidelines:

Gathering data about physical status

- 1 Begin by recording accurate age, height, and weight.** These are important in determining safe drug dosage.
- 2 Document vital signs:** temperature, pulse, respirations, and blood pressure.

3 Perform a complete physical examination. Include a review of systems: neurological, respiratory, cardiovascular, circulatory, gastrointestinal, genitourinary, musculoskeletal, and integumentary (skin).

♦ *For IM or IV administration (or if drug abuse is suspected), special attention should be given to assessment of the muscles, skin, and veins.*

4 Check results of diagnostic studies that indicate liver and kidney function. These are the organs of metabolism and excretion of most drugs. Examine the values of SGOT, LDH, bilirubin, alkaline phosphatase, BUN, and creatinine.

5 Check drug-specific diagnostic studies. For example, if a patient is going to be taking an anticoagulant, check the prothrombin time. (For drug-specific diagnostic studies, see the *Nursing implications/Documentation* section under the drug listing).

6 If the patient is already taking medications, determine how he or she is responding. The letters in the mnemonic *TACT* help you remember to check the following:

T Therapeutic effect

A Adverse reactions and side effects

C Contraindications

T Toxicity and overdose

This gives a new dimension to the statement "Assess with *tact* when you give medications."

♦ **Assessing children**

1 Ascertain actual age (for children under 3 years, convert age to months), height, and weight. (Most medications are ordered on basis of body weight and age.)

2 Try to take vital signs when the child is calm because respiration and heart rate increase with stress or exercise. If possible, sit with the child and assess pulse and respirations without his or her knowledge.

3 Allow children to handle examination equipment (e.g., stethoscope) and to try the techniques themselves. For the very young, you might want to make a game of the examination; for older children, make it an opportunity for learning.

♦ **Assessing the elderly**

1 Determine accurate height and weight instead of asking the patient to supply infor-

mation that might not be current. If the person is frail, a chair scale or bedscale may be necessary.

2 Assess mental status, memory, motor skills, and ability to follow simple instructions.

3 Monitor diagnostic studies closely. The elderly are more likely to be susceptible to adverse effects of medications.

The Drug Regimen: Gathering information

Gathering information about the medications that the patient is taking is as important as gathering information about the patient. You must ascertain exactly what drugs are currently on the medication regimen. (This may have been determined during the nursing interview, but must be validated by checking physician's orders.) The physician's written orders (or prescriptions) should specify the following information about each drug:

☐ The patient's name and address

☐ The date of the order or prescription

☐ The drug name (generic or brand name)

☐ The dosage and route of administration

☐ The frequency of administration (when the medication should be given)

☐ The length of time the patient is to continue taking the medication (this may be determined by hospital policies)

If this information is not clear, you should contact the physician and ask him to clarify the order. Failure to clarify an unclear order is considered negligence and could result in harm to the patient.

Information about Specific Drugs

Once you have determined the medications that your patient is to receive, you must determine exactly how each medication works, how each is likely to alter body functioning, and what factors may influence its action. Drug information can be obtained in two ways:

1 By studying the available literature (pharmacology texts, drug manuals, journal articles, package inserts)

2 By consulting other qualified health care professionals (pharmacists, physicians, nurses)

Choosing Appropriate Pharmacological References

Today's nurse is faced with the problem of choosing among many pharmacology texts and references. Should you use the ones the doctors use? How about the ones the pharmacists use? Surely these books contain everything! Unfortunately, this is not so. Although many of these books provide helpful information, they were not written to meet the needs of nurses.

You should choose references that provide drug information that *nurses* need to know: patient education, nursing diagnoses, documentation, home care, as well as the information available in the *Physician's Desk Reference (PDR)*. We have designed this book to provide the information that you, as a nurse, need to meet the ever-growing demands of nursing practice. However, to help you evaluate other literature for nursing use, the following checklist outlines common questions a nursing drug manual should answer about medications.

Checklist:

Questions a nursing drug manual should answer

- ☐ What are the generic and brand names of the drug?
- ☐ Why is this drug usually given?
- ☐ How does this drug work and how is it likely to change my patient's current state of functioning?
- ☐ When is this drug contraindicated?
- ☐ What is the safe dose range and method of administration?
- ☐ Does this drug interact with food or with other drugs?
- ☐ What side effects, adverse reactions, and potential complications might be experienced when taking this drug?
- ☐ Are there special considerations for giving this drug to children, pregnant or nursing mothers, or the elderly?
- ☐ What potential nursing diagnoses might be seen in individuals taking this drug?
- ☐ How can I monitor for therapeutic effects, side effects, adverse reactions, and toxicity?
- ☐ What nursing interventions help promote therapeutic effects and reduce side effects and adverse reactions?
- ☐ How can I prevent complications and help people cope with side effects?

- ☐ What data is important to document when using this drug?
- ☐ What should I teach about this drug, and how can I prepare people to take it at home?

Consulting Qualified Health Care Professionals

Because of the incredible rate of change of available drug preparations, and because of the complexity of some patient situations, you will at times need to consult a qualified health care professional (physician, pharmacist, nurse) to supplement the information that is available in the literature. In addition, you may need information about a new drug that is not yet covered in the literature. Information from consultations can be as valuable as information from published sources. Whenever the usual references do not answer your specific questions about a medication, you should seek consultation.

Checklist:

Consulting about medication information

- ☐ **Don't ask just anyone.** Find a reliable resource person. Ask the nursing supervisor to help you to locate an expert. **Rationale:** Be sure that you are asking the most qualified professional.
- ☐ **Do ask the person's name and document who gave you the information.** You may want to keep a personal log. **Rationale:** You need to be sure who gave you the information in case there are questions later.
- ☐ **Don't just accept someone's word when he or she gives you information.** Ask "Can you tell me what reference you are using?" or "Can you send me the information?" **Rationale:** This will help validate the information and you can learn more by reading the reference.
- ☐ **Do check with more than one professional if you are not sure.** **Rationale:** This will help you ensure that the information is correct.
- ☐ **Don't give the medication if you don't have all the information necessary to do so safely.** Notify the supervisor or head nurse that you lack sufficient information to give this drug safely. **Rationale:** You are the one who is accountable for giving the medication, and you should not give it if you are unsure about its safety.

2

Diagnosis: Identifying nursing diagnoses and collaborative problems

Nursing Diagnoses and Collaborative Problems

Once you have gathered data about your patient and the medications, you are ready to identify nursing diagnoses and collaborative problems.

The nursing diagnoses deal with the *human response* of your patient and are treatable through independent nursing interventions. Often these problems are associated with learning about medications, preventing injury or discomfort, and managing the medications at home.

On the other hand, collaborative problems cannot be treated by independent nursing interventions alone. They require the nurse to collaborate with the physician (or other qualified health care professional) to initiate appropriate definitive treatment (Carpenito, 1991). For example, if you perform a nursing assessment and note that a patient who is receiving an antibiotic might be developing a rash, you would need to report this immediately to the physician. Together you would decide what actions must be taken, depending on the severity of the reaction and the need for antibiotics.

The following section discusses how to identify nursing diagnoses (human responses) and collaborative problems (potential complications) associated with medication administration.

Identifying Nursing Diagnoses

Nursing diagnoses focus on the human responses of individuals, families, and groups, and their use encourages nurses to meet those human needs once considered as “nice to do if there’s time.” Today’s standards mandate that nurses make nursing diagnoses and identify nursing interventions that promote, maintain, and restore health. For example, it is no longer considered “nice” to teach patients about their medications; it is standard procedure. If your patient doesn’t know about medications, and you fail to identify the problem or teach the necessary information, then you are providing substandard nursing care. Nurses must become

skilled in recognizing and treating actual and potential nursing diagnoses frequently associated with drug therapy.

The North American Nursing Diagnosis Association (NANDA) has compiled a list of nursing diagnoses accepted for study and clinical testing (listed in the Preface). Analysis of patient and medication data may suggest the presence of one of these nursing diagnoses. Grouping nursing assessments with drug information will make you aware of patterns that suggest a specific nursing diagnosis. Note the following example:

Example:

Clustering patient and drug data to formulate a nursing diagnosis

Data

- ◆ States “no bowel movement in 3 days.”
- ◆ States “full feeling in stomach.”
- ◆ Medication record documents that the patient has been taking codeine 30 mg q4h around the clock for 2 days.
- ◆ Drug manual lists constipation as a common side effect of codeine.

Nursing Diagnosis: *Constipation related to codeine as manifested by statements of “no bowel movement in 3 days” and “full feeling in stomach,” and documented course of codeine for 2 days.*

Common Nursing Diagnoses Associated with Medications

People who are taking medications are at risk for several nursing diagnoses. Some nursing diagnoses are related to a side effect or action of the medication (e.g., *Potential for injury* related to postural hypotension side effect of propranolol, or *Constipation* related to side effect of codeine); others arise because the patient has just begun drug therapy (e.g., *Knowledge deficit*), or because the medication regimen is somewhat complicated for home management (e.g., *Impaired home maintenance management*). There are three nursing diag-

noses that seem especially linked with medication administration in general:

1 *Potential for injury*

2 *Knowledge deficit*

3 *Impaired home maintenance management*

Potential for injury is a frequent diagnosis, and often occurs because of specific actions or side effects of medication. It may more often be related to problems associated with *Knowledge deficit* and *Impaired home maintenance management*, for which detailed care plans are given at the end of Chapter 5. As you read the care plans, note that resolving problems associated with *Knowledge deficit* and *Impaired home maintenance management* often reduces the risk of *Potential for injury*.

Identifying Collaborative Problems and Potential Complications

Collaborative problems are actual or potential pathophysiologic complications that may result from diagnostic, monitoring, or treatment-related situations. The nurse's role in dealing with these potential complications is that of monitoring to detect their onset and status, of implementing protocols and physician-prescribed interventions, and of collaborating with the appropriate health care professionals for definitive treatment. For example, for a patient receiving medication, the nurse's role is to:

- 1 Monitor** to detect early signs and symptoms of potential medical complications that may result from taking medications, including allergic reactions (e.g., a rash on a patient receiving an antibiotic), untoward side effects (e.g., respiratory depression in a person receiving a sedative), and overdose or toxicity (e.g., nausea and vomiting in a person taking digoxin).
- 2 Withhold the medication** if there is any question that it should be given, contact the physician, and provide supportive measures as needed (these may be as simple as asking the patient to remain in bed with the side rails up, or as complicated as sounding the cardiac arrest alarm).
- 3 Implement nursing interventions** to reduce the incidence of potential complications (e.g., if you were giving a patient anticoagulants, you would take extra care when giving injections). The nurse's role in monitoring for early detection of drug-related complications cannot be

overemphasized. In fact, the sole reason for many hospitalizations is to ensure early detection and treatment of drug-related complications by having expert nursing observation and documentation.

Identifying drug-related complications involves analyzing patient and medication information. For example, take a look at how the following information about a 71-year-old woman who is taking heparin has been grouped to identify the potential complication of *hemorrhage*. Then study the checklist, provided to assist you in identifying common potential drug-related complications.

Example:

Clustering patient and drug data to identify collaborative problems/potential complications

Data

- ♦ The patient is a female, age 71.
- ♦ She is receiving heparin 5,000 units q6h SC.
- ♦ Drug information includes a warning that women over 65 are more likely to experience hemorrhage as an adverse reaction.

Collaborative Problem: *Potential complication: hemorrhage* as evidenced by documented regimen of heparin 5,000 units q6h for this female who is over 65.

Checklist:

Identifying potential complications

1 Potential complication: allergic response

- ☐ Check for allergies to the drug, closely related drugs, or substances used to prepare the drug. Also determine if the patient has a history of being an "allergic person." People who have multiple allergies are more likely than people without allergies to have allergic reactions to medications.

2 Potential complication: adverse reaction

- ☐ Ascertain that the individual does not have any of the signs, symptoms, or illnesses listed under the *Contraindications/precautions* section for the drug(s) you are about to administer. Be sure that you consider age, weight, and special precautions for pregnant or nursing mothers.
- ☐ Examine data for history of preexisting conditions that may precipitate adverse reactions or influence drug dosage. (For example, a person with a history of ulcers may react adversely to aspirin by bleeding.)
- ☐ Study the *Side effects/Adverse reactions* section for the drug to be sure that you are aware

of the reactions that have happened to other people taking the same drug. (Any patient is at risk for these, especially when they are beginning therapy).

**3 Potential complication:
drug incompatibility/interaction**

☐ Consider all the medications that are being taken and check drug information for incompatibilities or interactions.

4 Potential complication: toxicity/overdosage

☐ Monitor diagnostic studies for abnormal liver and kidney function (SGOT, LDH, alka-

line phosphatase, BUN, creatinine), because the body's ability to metabolize and excrete medications depends greatly on liver and kidney function.

☐ Monitor serum drug levels, if applicable. (See individual drugs for other signs and symptoms of toxicity or overdosage.)

☐ Check other medications that have been given to determine whether one may potentiate another. (For example, a person who has received a narcotic may be oversedated when given a routine medication for sleep.)

3

Planning:

Setting priorities, determining goals, documenting the medication schedule, identifying nursing interventions, and documenting the care plan

Once you have identified nursing diagnoses and collaborative problems, you are ready to plan nursing care. Planning involves setting priorities, determining goals, scheduling and documenting the medication regimen, and identifying nursing interventions to promote therapeutic effects and minimize side effects and adverse reactions.

Setting Priorities

Since you can't do everything at once, set priorities by determining what **must** be done first, and what can wait until later. You need to set priorities for nursing diagnoses, for monitoring for potential complications, and for timing of medications.

Example:

Setting priorities for nursing diagnoses

You have a patient with two nursing diagnoses, *Knowledge deficit: insulin injection technique* and *Disturbance in self-concept* related to newly diagnosed diabetes. You would probably do well to work on the problem of *Disturbance in self-concept* before you work on teaching how to give an injection.

Example:

Setting priorities for monitoring for potential complications

You have someone who has just begun receiving intravenous nitroglycerin. Because of the rapid response to IV administration and the potency of nitroglycerin and its effect on the cardiovascular system, you know you must assign a high priority to monitoring and documenting blood pressure and pain level every 5 minutes.

Example:

Setting priorities for timing of medications

You have someone scheduled to receive an antibiotic four times a day for a severe infection. The routine qid times for medications are 10-2-6-10. Because of the importance of maintaining adequate antibiotic blood levels, you

should clarify with the physician and assign around-the-clock times, such as a 6-12-6-12 schedule, even if it means waking the patient. In this situation, the need for maintaining a good blood level of the antibiotic has to take a priority over the person's need for undisturbed sleep.

Determining Goals and Outcome Criteria

For every nursing diagnosis you identify, you should determine a client-centered goal to direct nursing care and to serve as an evaluation criterion later when evaluating the success of the plan of care. For example, for the nursing diagnosis of *Knowledge deficit: insulin injection technique*, you may set a goal of "Will demonstrate sterile self-injection of insulin by 9/18." This goal will direct you to teach insulin injection technique by 9/18, and will also help you evaluate the plan of care (on 9/18 determine whether the individual can self-inject insulin).

It is also important to determine the therapeutic goal of medications and the outcome criteria that indicate the drug is working as intended. While the nurse alone is not accountable for achieving the therapeutic goal, you must answer the questions "What specific beneficial effects are anticipated by giving the medication to this specific individual?" and "How do I know if the medication is working?" The drug information in this book will help you determine these answers, because it lists therapeutic goals and outcome criteria for each drug (check any drug for an example).

Scheduling the Medication Regimen

Proper scheduling of the medication regimen plays a major role in the success of the medication treatment plan. All medications the patient will be taking should be considered, and timing of doses should be scheduled so that optimum beneficial effects can be achieved. The following guidelines are sug-

gested to help you in coordinating and scheduling the medication regimen.

Guidelines:

Coordinating and scheduling medications

- 1 Consider all medications to be taken, as well as the patient's daily schedule.**
- 2 Avoid drug interactions by separating the administration times of drugs that are likely to interact or potentiate one another.** For example, avoid giving a tranquilizer and a sedative at the same time, unless this has been determined to be necessary.
- 3 Schedule doses to avoid food-drug interactions, to promote beneficial effects, and to minimize side effects.** Give medications with or without food as suggested by the drug information, and set administration times to maintain desired serum drug levels.
- 4 Whenever possible, schedule doses for the convenience of the patient.** For example, routine doses of diuretics should not be given late at night when the patient is trying to sleep.

Documenting

Once you have determined how to coordinate and schedule drug administration, it must be documented clearly on the medication record to provide easy access to information about the medication regimen. This medication record is a very important piece of nursing documentation; all of the vital information about the patient's medications can be found in one place. Keeping the information in one place reduces the likelihood that a consulting physician or another nurse will overlook important data.

Because the format of medication records varies from institution to institution, you will have to become familiar with your facility's policies and procedures for documenting medications. Despite the variability in format and design, all medication records should provide the information necessary to answer the following important questions.

Checklist:

Questions that the medication record should answer

- ☐ What is the age, height, weight, and diet of this patient?
- ☐ What is this patient allergic to?

- ☐ What medications has this person received?
- ☐ What medications is the person yet to receive?
- ☐ What drugs may be given prn, and for what reasons?
- ☐ What medications are "one time only" or "stat" drugs?
- ☐ What is the dose, route of administration, and time of each dose?
- ☐ When was each medication ordered (start date), and when will each be discontinued (stop date)?
- ☐ What doses have been withheld?
- ☐ Who transcribed or checked the medication order?
- ☐ Who administered each dose?
- ☐ What was the site of each injection?

This may be noted by writing a number which corresponds to an injection site. See Guidelines: Codes for injection sites, on pages 12 and 13.

Adjunctive (Drug-specific) Nursing Interventions

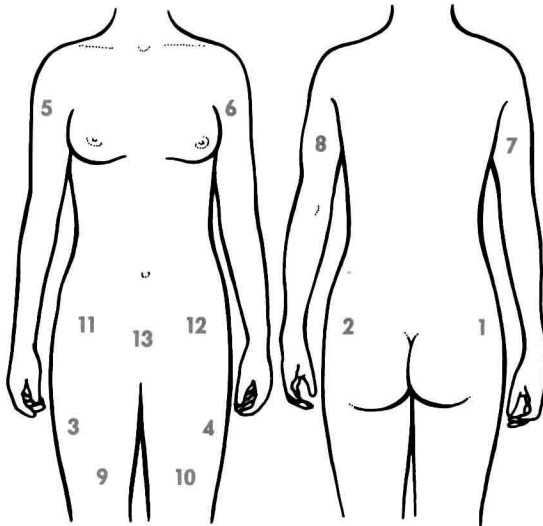
Adjunctive nursing interventions are those independent nursing interventions performed specifically because the patient is receiving a certain medication. These interventions are performed to promote therapeutic effects of a medication, to provide for safety, to reduce the incidence of side effects and adverse reactions, and to monitor for detection of potential medication-related complications.

There are three types of adjunctive nursing interventions:

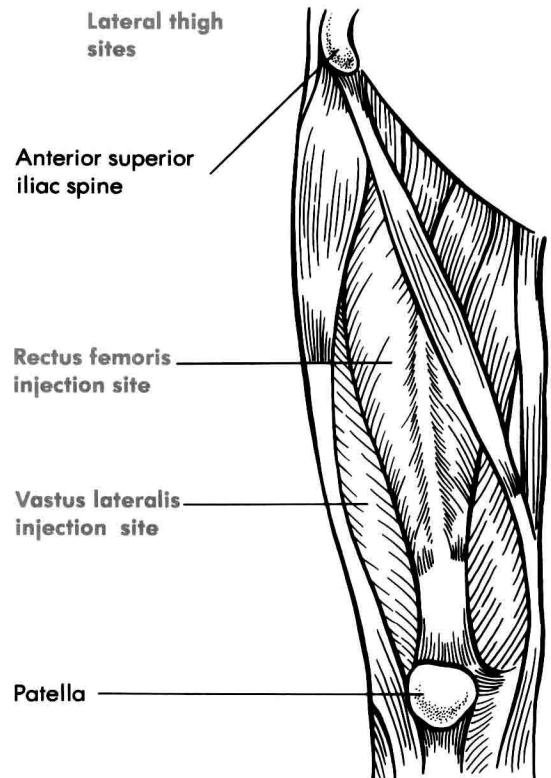
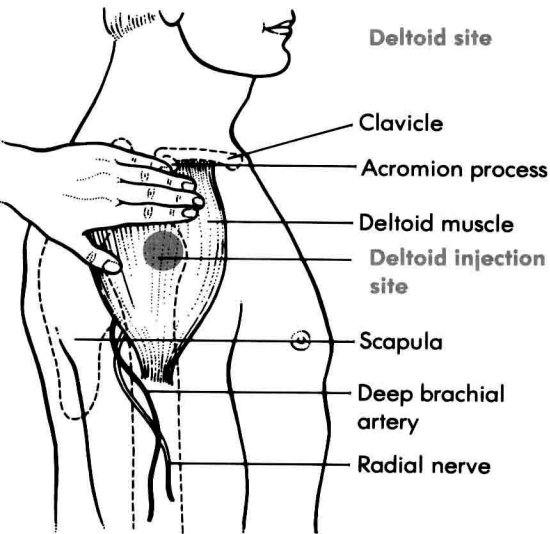
- 1 Assessment interventions** are those activities nurses perform to monitor for problems related to the medication regimen.
- 2 Teaching interventions** are those activities nurses perform to promote knowledge of the medication regimen.
- 3 Action interventions** are those activities that nurses perform or assist the patient in performing to enhance the action of the drug or to minimize expected side effects. Putting up siderails for safety, or helping a patient get out of bed when the patient has received a sedative, are examples of action interventions.

When these three types of nursing interventions are incorporated in the plan of care, comprehensive nursing care is enhanced.

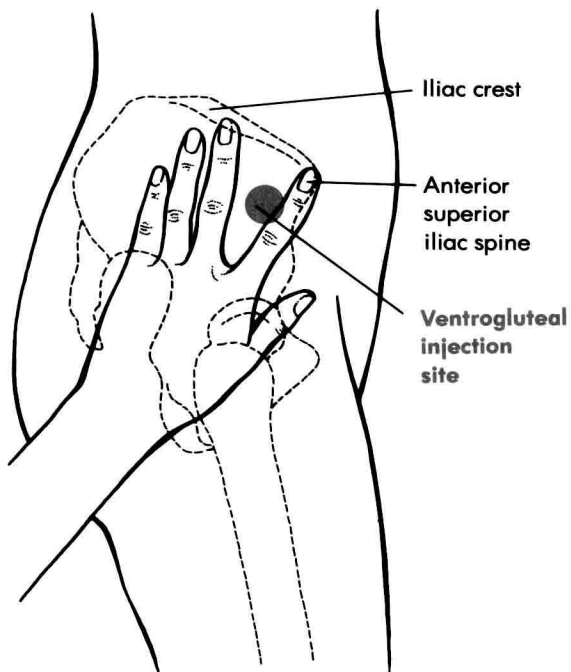
Guidelines: Codes for injection sites



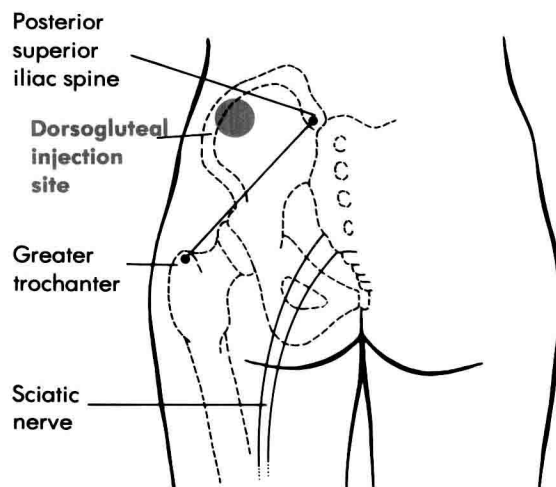
- 1** Right gluteal IM
- 2** Left gluteal IM
- 3** Right lateral thigh IM
- 4** Left lateral thigh IM
- 5** Right deltoid IM
- 6** Left deltoid IM
- 7** Right arm SC
- 8** Left arm SC
- 9** Right anterior thigh IM
- 10** Left anterior thigh IM
- 11** Right lower abdomen SC
- 12** Left lower abdomen SC
- 13** Mid lower abdomen SC



Ventrogluteal site

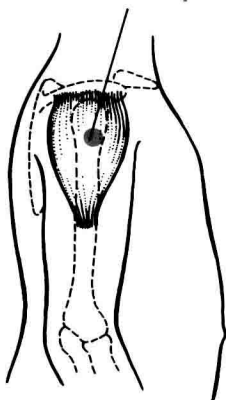


Dorsogluteal site

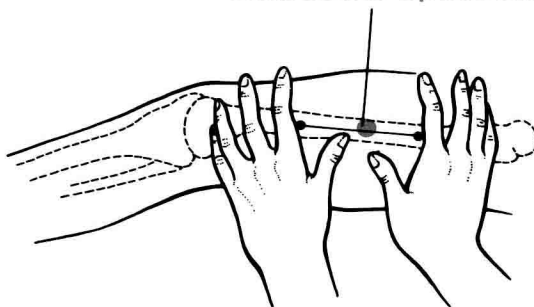


Pediatric injection sites

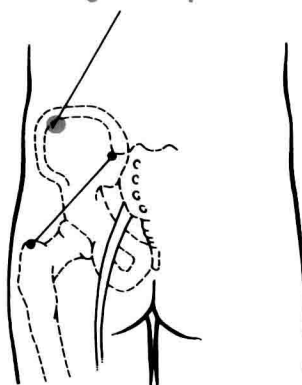
Deltoid injection site



Vastus lateralis injection site



Dorsogluteal injection site



Examples:

Adjunctive (drug-specific) nursing interventions

- ♦ **Putting up side rails after administering a sedative.** *Rationale:* Provides for safety; the patient may become disoriented from the medication.
- ♦ **Exploring with a patient why he or she feels anxious and helping him or her identify things to allay the anxiety before giving a tranquilizer.** *Rationale:* Enhances expected therapeutic effects of the medication by helping the person use inner strength to reduce anxiety. Often, this may even *eliminate* the need for a tranquilizer.
- ♦ **Explaining the reason that a pain medication will be given, e.g., to enable him or her to perform coughing and deep breathing exercises better.** *Rationale:* Promotes clinical goal of therapy because the patient is aware of the reason for medication.
- ♦ **Planning for increased exercise, fluids, and dietary intake of roughage when a patient is taking a drug that may cause constipation.** *Rationale:* Minimizes the side effect of constipation.
- ♦ **Explaining that it is important for the patient to let you know if the medication makes him or her feel dizzy, and to call for assistance if this occurs.** *Rationale:* Promotes early detection of side effects and provides for safety.

- ♦ **Teaching a woman in labor relaxation techniques, in addition to giving her medication for pain.** *Rationale:* Enhances expected therapeutic effects by reducing nervous and muscular tension.
- ♦ **Recording frequent blood pressures of a patient who has just begun taking an anti-hypertensive medication.** *Rationale:* Monitors the potential complication of hypotension.

Identifying Adjunctive Interventions

The importance of these types of independent nursing interventions cannot be underestimated: they can even reduce the need for some medications. For example, someone who requests a sleeping pill may receive a similar effect if the nurse takes the time to discuss the reasons for the inability to fall asleep, or even to give a relaxing back rub. Nurses must view the whole picture and employ holistic, nonchemical interventions to enhance the intended effect of the medicine—and perhaps even eliminate the need for a particular medication.

The *Nursing interventions/Documentation* and *Patient & family teaching/Home care* sections will help you identify drug-specific adjunctive nursing interventions. The care plans for *Knowledge deficit: medications* and *Impaired home maintenance management* will also help you determine independent nursing interventions that promote a therapeutic medication regimen.

4

Implementation: Administering medications safely and effectively

Performing Ongoing Assessments

Your ability to perform ongoing assessments **before** giving any medication is essential to administering medications safely and effectively. These assessments are necessary to be sure that there are no contraindications to giving the drug, to help predict possible untoward reactions, and (in some cases) to determine whether the drug is still indicated. If you give a drug without assessing the patient, and the patient's assessment data indicates that the drug obviously should be withheld, it may harm the patient, and you would be as accountable as the physician.

- ♦ *In fact, if the order was appropriate when the physician saw the patient, but inappropriate when you **gave** the medication because of a change in clinical status, you may be the only one who is accountable.*

The physician prescribes medications, but legally, the nurse is responsible for assessing the patient before drug administration to be sure that there are no signs and symptoms that indicate that the drug should be withheld. Although nurses (with the exception of some *nurse practitioners*) are restricted by law from prescribing drugs, nurses are accountable for:

- 1 clarifying orders that are unclear,
- 2 questioning doses that are excessive, and
- 3 withholding doses and **notifying the physician** whenever there is a question whether the drug should be given.

Assessing current status helps you anticipate how a patient may react to a medication. For example, you may read in a drug manual that the onset of action of an intramuscular narcotic occurs within 30 minutes, and the duration of action is 2 to 3 hours. While this may be true as an average, individuals may react differently depending on their other medications and their age, height, weight, and health status. Use drug information as a guide to predicting effects; use **your assessment skills** before giving medications to individualize the medication regimen to special needs.

Finally, because of the unpredictability of individual reactions, make it a rule:

- ♦ *Give all first doses with caution, and with close attention to patient status after drug administration.*

Perform a safety check like that shown on the next page before giving any medication.

Monitoring Responses and Detecting Complications

Performing ongoing assessments **after** medication administration is the key to determining how the patient is responding to a medication, and to detecting potential complications early. These assessments will help you determine whether someone is experiencing the **desired therapeutic effect**, whether there are any **side effects** or **adverse reactions** that may need to be managed, and even whether the drug should be continued.

- ♦ **It is useless to give a medication that is not working.**
- ♦ **It is even worse to continue giving a medication that causes more problems than it relieves.**

Within each drug listing, the *Use/Therapeutic goal/Outcome* section tells you how to determine if your patient is experiencing the desired therapeutic effects. The *Nursing implications/Documentation* and *Patient & family teaching/Home care* sections help you determine what you should monitor to assure early detection of side effects or adverse reactions.

Preventing Medication Errors

Because of the ever-present possibility of human error, preventing medication errors is a major concern of nurses. Many mistakes can be prevented by checking for human error that could occur at crucial points in the process of the physician prescribing, the pharmacist dispensing, and the nurse administering medications.

Safety Check: Before giving medications

Ask yourself the following questions:

1 Has the physician clearly written:

- ☐ The name of the medication.
- ☐ The dose and route of administration.
- ☐ The frequency or conditions of administration.
- ☐ The length of time the medication is to be taken. (*This may be determined by standard hospital policy.*)
- ☐ **Has a nurse initialed** that the physician's order was properly transcribed?

2 Is this medication order still valid?

- ☐ Check expiration dates.
- ☐ Also ensure that the order has been rewritten if the patient has just returned from the operating room.
- ♦ *All medication orders are usually canceled when a patient goes to the operating room, and new orders must be written when the patient returns.*

3 Why is this drug indicated for this specific patient?

4 Is this the correct time to give this medication?

- ☐ Have I checked the time that the last dose was given?

5 Have I checked the medication label three times to be sure that I have the right medication?

- ☐ Check the label when taking the medication from storage.
- ☐ Check the label before preparing the medication.
- ☐ Check the label again when replacing the medication in storage.

For unit doses:

- ☐ Check the label when you take the unit dose from storage.
- ☐ Check the label immediately before opening it.
- ☐ Check the label again as you discard the unit dose wrapper.

6 Is the drug properly labeled, and does it appear as it should?

- ☐ Unit doses and new bottles should be intact and free from evidence of tampering (seals should be intact).
- ☐ Most parenteral medications should be clear, rather than look cloudy or contain crystals.
- ☐ Pills, tablets, and capsules should be free from evidence of dirt or moisture.

7 Do I have the right patient?

- ☐ Is the name on the identification bracelet the same as the name on the physician's order sheet?
- ☐ Does the name on the medication bottle match the identification bracelet?

8 Is the dose and route of administration appropriate for this patient?

- ☐ Is dose within the recommended limits?
- ☐ Is patient allowed or able to tolerate this route?

9 Does this individual exhibit any signs and symptoms that indicate that this drug should not be given?

- ☐ Has the patient received any **other** medications that may affect how this drug will act?
- ☐ Are there procedures planned that may influence whether this medication should be given (e.g., when insulin is ordered and the individual is not allowed to eat because of lab studies)?