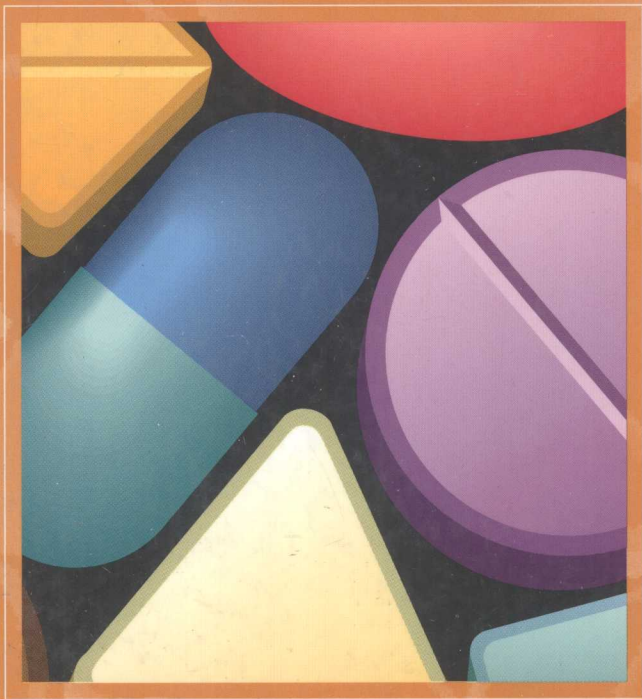


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1999

Lippincott's Nursing Drug Guide

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The authors, editors and publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accordance with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new or infrequently employed drug.

Some drugs and medical devices presented in this publication have Food and Drug Administration (FDA) clearance for limited use in restricted research settings. It is the responsibility of the health care provider to ascertain the FDA status of each drug or device planned for use in their clinical practice.

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Preface

How To Use This Drug Guide

The number of clinically important drugs increases every year, as does the nurse's responsibility for drug therapy. No nurse can memorize all the drug information needed to provide safe and efficacious drug therapy. The *1999 Lippincott's Nursing Drug Guide* provides the drug information nurses need in a concise, ready-access format and presents nursing considerations related to drug therapy in the format of the nursing process, a framework for applying basic pharmacologic information to patient care. It is intended for both the student nurse who is just learning how to apply pharmacologic data in the clinical situation and the busy practicing professional nurse who needs a quick, easy-to-use guide to the clinical use of drugs. This book provides broad coverage of the drugs commonly encountered by nurses and of drugs whose use commonly involves significant nursing intervention. Commonly used medical abbreviations are found throughout the book and are defined in the list of Commonly Used Medical Abbreviations located on the inside front cover and facing page.

Part I

The first section of this book provides a concise review of the nursing process and its application to pharmacologic situations, including a concise example of how to use this drug guide to apply the nursing process. A review of selected drug classifications provides a convenient, complete summary of the drug information pertinent to drugs in each class. The Compendium of Adverse Effects includes guidelines for nursing interventions as related to adverse effects.

Part II

Drug information is presented in monograph form, with the monographs arranged alphabetically by generic name. Each page of the book contains guide words at the top, much like a dictionary, to facilitate easy access to any drug. The right-hand edge of the book contains letter guides, again to facilitate finding a drug as quickly as possible.

Complete Drug Monographs

Each drug monograph is complete in itself—that is, it includes all of the clinically important information that a nurse needs to know to give the drug safely and effectively. Every monograph begins with the drug's generic (nonproprietary) name; an alphabetical list of the most common brand names, including common brand names found only in Canada (noted by the designation CAN); a notation indicating if the drug is available as an OTC drug; its pregnancy category classification; and its schedule if it is a controlled substance.

- Commonly accepted pronunciation (after *United States Adopted Names [USAN]* and the *United States Pharmacopeia [USP] Dictionary of Drug Names*, 1987) is provided to help the nurse feel more comfortable discussing the drug with other members of the health care team.
- The clinically important drug classes of each drug are indicated to put the drug in appropriate context.
- The therapeutically useful actions of the drug are described, including (when known) the mechanism(s) by which these therapeutic effects are produced; no attempt is made to list *all* of the drug's known actions here.

- Clinical indications for the drug are listed, including important non-FDA approved, or “unlabeled,” indications as well as orphan drug uses when appropriate.
- Contraindications to drug use and cautions that should be considered when using the drug are listed.
- The pharmacokinetic profile of the drug is given in table form to allow easy access to such information as half-life, peak levels, and distribution, offering a quick reference to how the drug is handled in the body.
- Dosage information is listed next, including adult, pediatric, geriatric, renal-impaired and hepatic-impaired patients, and dosages for different indications when these differ. Details of drug administration that must not be overlooked for the safe administration of the drug (e.g., “Dilute before infusing,” or “Infuse *slowly* over 30 minutes”) are included in the dosage section, but other aspects of drug administration (e.g., directions for reconstituting a powder for injection) are presented under “Implementation” in the next section of the monograph. If there is a treatment for the overdose of this drug, that information is indicated in a separate section.
- The **IV Facts** section gives concise, important information that is needed for drugs given IV—preparation guidelines, dilution, flow rate, compatibilities, and monitoring tips—making it unnecessary to have a separate IV handbook.
- Commonly encountered adverse effects are listed by body system, with the most commonly encountered adverse effects appearing in *italics* to make it easier to assess the patient for adverse effects and to teach the patient about what to expect. Potentially life-threatening adverse effects are in **bold** for easy access. Adverse effects that have been reported, but appear less commonly or rarely, are also listed to make the drug information as complete as possible.
- Clinically important interactions are listed separately for easy access—drug–drug, drug–food, and drug–laboratory test interferences to consider when using the drug and any nursing action that is necessary because of this interaction.

Clinically Focused Nursing Considerations

The remainder of each monograph is concerned with nursing considerations, which are presented in the format of the nursing process. The steps of the nursing process are given slightly different names by different authorities; this drug guide considers assessment (history and physical), implementation, and drug-specific teaching points for each of the drugs presented.

1. **Assessment:** Outlines the information that should be collected before administering the drug. This section is further divided into two subsections:
 - *History:* Includes a list of those underlying conditions that constitute contraindications and cautions for use of the drug.
 - *Physical Assessment:* Provides data by organ system that should be collected before beginning drug therapy, both to allow detection of conditions that are contraindications/cautions to the use of the drug and to provide baseline data to allow detection of adverse reactions to the drug and to monitor for therapeutic response.
2. **Implementation:** Lists, in chronologic order, those nursing activities that should be undertaken in the course of caring for a patient who is receiving the drug. This includes interventions related to drug preparation and administration, the provision of comfort and safety measures, and drug levels to monitor, as appropriate.
3. **Drug-Specific Patient Teaching Points:** Includes specific information that is needed for teaching the patient who is receiving this drug. Proven “what to say advice” can be transferred directly to patient teaching cards and used as a written reminder. (A sample teaching card is provided in the appendices for easy copying.)

Evaluation is usually the last step of the nursing process. In all drug therapy, the patient should be evaluated for the desired effect of the drug, as listed in the *Indications* section;

the occurrence of adverse effects, as listed in the *Adverse Effects* section; and learning following patient teaching, as described in the *Drug-Specific Teaching Points* section. These points are essential. In some cases, evaluation includes monitoring specific therapeutic serum drug levels; these cases are specifically identified under *Implementation*.

Appendices

The appendices contain information that is useful to nursing practice but may not lend itself to the monograph format—a detailed combination drug reference, biologicals, topical drugs, vitamins, laxatives, ophthalmic preparations, adjuncts to general anesthesia, peripheral vasodilators, general anesthetics, topical corticosteroids, and alternative and complementary therapies—as well as pregnancy categories, schedule of controlled substances, formulas for dosage calculations, pediatric nomograms, list of nursing diagnoses, guide for injection, recommended immunization schedule, equianalgesic dosages for narcotics, common cancer chemotherapy combinations, regimen for endocarditis prophylaxis, guides to drug compatibility and drug compatibility in syringes, the patient teaching guide, important dietary sources for patient teaching, and a list of drugs withdrawn or discontinued since the last edition. A suggested bibliography follows the appendices.

Index

An extensive index provides a ready reference to drug information. The **generic** name of each drug is highlighted in bold. If the generic name of a drug is not known, the drug may be found quickly by using *whatever* name is known. *Brand names* are listed in italics; commonly used chemical names, and any commonly used “jargon” names (such as “IDU” for idoxuridine) are in plain print. In addition, the index lists drugs by clinically important classes—pharmacologic and therapeutic. If you know a patient is taking an antianalgesic drug and don’t remember the name, reviewing the list of drugs under **Antianginals** may well help recall the name. Chlorpromazine, for example, is indexed by its generic name, by its brand names, and by classes as an Antipsychotic drug (a therapeutic classification), as a Phenothiazine (a chemical classification), and as a Dopaminergic blocking drug (a classification by postulated mechanism of action). The comprehensive index helps to avoid cross-referencing from within the text, which is time consuming and confusing.

Plus These Exciting New Features

- More than 50 newly released drugs
- Over 1,000 updates on dosage, indications, precautions, and administration
- Listing of available forms for each drug, making it easier for prescribing or guiding patients
- Simple guide for application of the nursing process, using the monograph format
- More IV facts content
- Expanded section on Alternative and Complimentary Therapies
- Expanded section on Combination Drugs
- Listing of the new standard for endocarditis prophylaxis
- Important dietary sources for patient teaching
- Listing of drugs withdrawn or discontinued since the last edition, to help those looking for a drug they are used to using but can’t find
- A 32-page full-color insert presenting nearly 400 of the most commonly prescribed drugs

Bonus Disk

The free disk has been updated with the most current data on nearly 150 of the most commonly prescribed drugs in the community. Design your own drug cards, create your own study aids, customize patient teaching tools.

Added Value

With this guide comes a free 1-year subscription to *PharmPhax*, Lippincott's pharmacology newsletter. Get the hottest drug information available, including the latest FDA drug approvals and advances in clinical pharmacology.

This fourth edition incorporates many of the suggestions and requests made by users of earlier editions of the drug guide. It is hoped that the overall organization and concise, straightforward presentation of the material in the *1999 Lippincott's Nursing Drug Guide* will make it a clinically useful reference for the nurse who needs easily accessible information to facilitate drug therapy within the framework of the nursing process. It is further hoped that the thoroughness of the additional sections of the book will make it an invaluable resource that will replace the need for several additional references.

Amy M. Karch, RN, MS

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Part **1**

Nursing Process Guidelines Related to Drug Administration

The delivery of medical care today is in a constant state of change and sometimes in crisis. The population is aging, resulting in more chronic disease and more complex care issues. The population is transient, resulting in unstable support systems, fewer at-home care providers and helpers. At the same time, medicine is undergoing a technological boom (eg, CAT scans, NMRI's, experimental drugs). Patients are being discharged earlier from the acute care facility or not being admitted at all for procedures that used to be treated in the hospital with follow-up support and monitoring. Patients are becoming more responsible for their own care and for following complicated medical regimens at home.

Nursing is a unique and complex science and a nurturing and caring art. In the traditional sense, nurses have always been seen as ministering and soothing the sick. In the current state of medical changes, nursing also has become more technical and scientific. Nurses have had to assume increasing responsibilities involved with not only nurturing and caring, but with assessing, diagnosing, and intervening with patients to treat, prevent, and educate to help people cope with various health states.

The nurse deals with the whole person—the physical, emotional, intellectual, and spiritual aspects—considering the ways that a person responds to treatment, disease, and the change in lifestyle that may be required by both. The nurse is the key health care provider in a position to assess the patient—physical, social, and emotional aspects—to administer therapy and medications, teach the patient how best to cope with the therapy to ensure the most effectiveness, and evaluate the effectiveness

of therapy. This requires a broad base of knowledge in the basic sciences (anatomy, physiology, nutrition, chemistry, pharmacology), the social sciences (sociology, psychology) and education (learning approaches, evaluation).

Although all nursing theorists do not completely agree on the process that defines the practice of nursing, most include certain key elements in the nursing process. These elements are the basic components of the decision-making or problem-solving process: assessment (gathering of information), diagnosis (defining that information to arrive at some conclusions), intervention (eg, administration, education, comfort measures), and evaluation (determining the effects of the interventions that were performed). The use of this process each time a situation arises ensures a method of coping with the overwhelming scientific and technical information confounding the situation and the unique emotional, social, and physical aspects that each patient brings to the situation. Using the nursing process format in each instance of drug therapy will ensure that the patient receives the best, most efficient, scientifically based holistic care.

Assessment

The first step of the nursing process is the systematic, organized collection of data about the patient. Because the nurse is responsible for holistic care, these data must include information about physical, intellectual, emotional, social, and environmental factors. They will provide the nurse with information needed to plan discharge, plan educational programs, arrange for appropriate consultations, and monitor physical response to treatment or to disease. In ac-

tual clinical practice, this process never ends. The patient is not in a steady state but is dynamic, adjusting to physical, emotional, and environmental influences. Each nurse develops a unique approach to the organization of the assessment, an approach that is functional and useful in the clinical setting and that makes sense to that nurse and that clinical situation.

Drug therapy is a complex, integral, and important part of health care today, and the principles of drug therapy need to be incorporated into every patient assessment plan. The particular information that is needed and that should be assessed will vary with each drug, but the concepts involved are similar and are based on the principles of drug therapy. Two important areas that need to be assessed are history and physical assessment.

History

Past experiences and past illnesses impact the actual effect of a drug.

Chronic conditions: These may be contraindications to the use of a drug or may require that caution be used or that drug dosage be adjusted.

Drug use: Prescription drugs, OTC drugs, street drugs, alcohol, nicotine, and caffeine all may have an impact on the effect of a drug. Patients often neglect to mention OTC drugs and contraceptives, not considering them actual drugs, and should be asked specifically about OTC drug and contraceptive use.

Allergies: Past exposure to a drug or other allergen can predict a future reaction or note a caution for the use of a drug, food, or animal product.

Level of education: This information will help to provide a basis for patient education programs and level of explanation.

Level of understanding of disease and therapy: This information also will direct the development of educational information.

Social supports: Patients are being discharged earlier than ever before and often need assistance at home to provide care and institute and monitor drug therapy.

Financial supports: The financial impact of health care and the high cost of

medications need to be considered when prescribing drugs and depending on the patient to follow through with drug therapy.

Pattern of health care: The way that a patient seeks health care will give the nurse valuable information to include in educational information. Does this patient routinely seek follow-up care or wait for emergency situations?

Physical assessment

Weight: Weight is an important factor when determining if the recommended dosage of a drug is appropriate. The recommended dosage is based on the 150-lb adult male. Patients who are much lighter or much heavier will need a dosage adjustment.

Age: Patients at the extremes of the age spectrum—pediatric and geriatric—often require dosage adjustments based on the functional level of the liver and kidneys and the responsiveness of other organs.

Physical parameters related to the disease state or known drug effects:

Assessment of these factors before beginning drug therapy will give a baseline level with which future assessments can be compared to determine the effects of drug therapy. The specific parameters that need to be assessed will depend on the disease process being treated and on the expected therapeutic and adverse effects of the drug therapy. Because the nurse has the greatest direct and continual contact with the patient, the nurse has the best opportunity to detect the minute changes that will determine the course of drug therapy and therapeutic success or discontinuation because of adverse or unacceptable responses.

The monographs in this book include the specific parameters that need to be assessed in relation to the particular drug being discussed (see the sample monograph at the end of this chapter). This assessment provides not only the baseline information needed before giving that drug, but the data needed to evaluate the effects of that drug on the patient. The information given in this area should supplement the overall nursing assessment of the patient, which will include social, intellectual, financial, environmental, and other physical data.