

3. Is the drug effective when used as recommended?
4. Is the drug safe when used as instructed?

Having drugs available OTC has potential advantages and disadvantages for consumers. Advantages include greater autonomy; faster and more convenient access to effective treatment; possibly earlier resumption of usual activities of daily living; fewer visits to a health care provider; and possibly increased efforts by consumers to learn about their symptoms/conditions and recommended treatments. Disadvantages include inaccurate self-diagnoses and potential risks of choosing a wrong or contraindicated drug, delaying treatment by a health care professional, and developing adverse drug reactions and interactions.

When a drug is switched from prescription to OTC status, pharmaceutical companies' sales and profits increase and insurance companies' costs decrease. Costs to consumers may increase because health insurance policies do not cover OTC drugs. For the year 2000, it was estimated that Americans spent more than \$19 billion on OTC drugs.

SOURCES OF DRUG INFORMATION

There are many sources of drug data, including pharmacology textbooks, drug reference books, journal articles, and Internet sites. For the beginning student of pharmacology, a textbook is usually the best source of information because it describes groups of drugs in relation to therapeutic uses. Drug reference books are most helpful in relation to individual drugs. Two authoritative sources are the *American Hospital Formulary Service* and *Drug Facts and Comparisons*. The former is published by the American Society of Health-System Pharmacists and updated periodically. The latter is published by the Facts and Comparisons division of Lippincott Williams & Wilkins and updated monthly (looseleaf edition) or annually (hardbound edition). A widely available but less authoritative source is the *Physicians' Desk Reference* (PDR). The PDR, published yearly, is a compilation of manufacturers' package inserts for selected drugs.

Numerous drug handbooks (eg, Lippincott's *Nursing Drug Guide*, published annually) and pharmacologic, medical, and nursing journals also contain information about drugs. Journal articles often present information about drug therapy for clients with specific disease processes and may thereby facilitate application of drug knowledge in clinical practice. Helpful Internet sites include the Food and Drug Administration (<http://www.fda.gov>), and RxMed (<http://www.rxmed.com>).

STRATEGIES FOR STUDYING PHARMACOLOGY

1. *Concentrate on therapeutic classifications and their prototypes.* For example, morphine is the prototype of opioid analgesics (see Chap. 6). Understanding morphine makes learning about other opioid analgesics easier because they are compared with morphine.
2. *Compare a newly encountered drug with a prototype when possible.* Relating the unknown to the known aids learning and retention of knowledge.
3. *Try to understand how the drug acts in the body.* This allows you to predict therapeutic effects and to predict, prevent, or minimize adverse effects by early detection and treatment.
5. *Concentrate your study efforts on major characteristics.* These include the main indications for use, common and potentially serious adverse effects, conditions in which the drug is contraindicated or must be used cautiously, and related nursing care needs.
6. *Keep an authoritative, up-to-date drug reference readily available, preferably at work and home.* This is a much more reliable source of drug information than memory, especially for dosage ranges. Use the reference freely whenever you encounter an unfamiliar drug or when a question arises about a familiar one.
7. *Use your own words when taking notes or writing drug information cards.* Also, write notes, answers to review questions, definitions of new terms, and trade names of drugs encountered in clinical practice settings directly into your pharmacology textbook. The mental processing required for these activities helps in both initial learning and later retention of knowledge.
8. *Mentally rehearse applying drug knowledge in nursing care* by asking yourself, "What if I have a client who is receiving this drug? What must I do to safely administer the drug? For what must I assess the client before giving the drug and for what must I observe the client after drug administration? What if my client is an elderly person or a child?"

Nursing Notes: Apply Your Knowledge

Answer: Meperidine (Demerol) is an opioid analgesic that is used to manage severe pain. Its abuse potential is high and it is therefore given a Schedule II classification. Diazepam (Valium) is an antianxiety agent that has some potential for abuse, so it is listed as a Schedule IV drug. Different references give you different information and are organized differently. A nursing textbook of pharmacology is comprehensive and gives you enough information to understand how drugs work. It is the best resource to use when you are first learning about drugs. Drug handbooks are helpful when you are trying to research specific information about a specific drug. They are arranged alphabetically and assume you have a basic understanding of pharmacology. The PDR is available in many health care facilities. It provides the reader with drug inserts from the manufacturer and color photographs of many medications. It is published annually, so it is a good resource for new drugs. Much information is provided, but without prioritization (eg, any reported side effect is given rather than identifying the most common or most serious side effects), which can make it difficult for a beginning student to use effectively.