HANDBOOK OF DRUGS

AND THE NURSING PROCESS

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Handbook of drugs and the nursing process

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Handbook of drugs and the nursing process

How to use this handbook

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. This handbook 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 the drugs whose use normally involves significant nursing intervention. (Drugs that are used only as diagnostic agents or that are administered only by physicians have generally been considered beyond the scope of this handbook.)

Drug information is presented in monograph form, with the monographs arranged alphabetically by generic name. If the generic name of a drug is not known, it may be found quickly by entering the comprehensive index at the back of the handbook with *whatever* name is known. The index provides the generic name—the key to finding the appropriate monograph—for most drug brand names, for commonly used chemical names, and for any commonly used "jargon" names (such as "IDU" for idoxuridine). In addition, the index lists drugs by clinically important classes. 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).

Each drug monograph is complete in itself; 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, a notation indicating if the drug is available as an OTC drug, and its schedule if it is a controlled substance. (The inclusion of a given brand name is not to be interpreted as an endorsement of that particular brand, nor is the omission of a given brand name to be construed as indicating prejudice against that brand.)

Commonly accepted pronunciation (after *USAN and the 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 are indicated to put the drug in appropriate context. The therapeutically useful actions of the drug are described, including, where known, the mechanism(s) by which these therapeutic effects are produced; no attempt is made to list *all* of the drug's known actions. Description of the therapeutically useful actions is

followed by a list of the clinical indications of the drug, including important non–FDA-approved, or "unlabeled," indications. This is followed by commonly encountered adverse effects and by dosage information—adult, pediatric, and geriatric, 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 min") are included in the dosage section, but other aspects of drug administration (*e.g.*, directions for reconstituting a powder for injection) are presented as "Interventions" in the next section of the monograph.

The remainder of each monograph is concerned with nursing considerations, which are presented, as stated earlier, in the format of the nursing process. The steps of the nursing process are given slightly different names by different authorities; this handbook considers the nursing process to consist of four steps: assessment, nursing diagnosis, intervention, and evaluation.

1. ***Pre-drug-therapy Assessment.*** This section outlines the information that should be collected before administering the drug. This section is further divided into two subsections.
   Patient History: A list of those underlying conditions that constitute *contraindications and cautions* for use of the drug, a list of drugs that cause documented *drug–drug interactions* with the drug described in the monograph, and a list of *drug–laboratory test interferences*—artifactual changes in laboratory tests that may occur as a result of the administration of the drug, and tests that may be difficult or impossible to interpret, and therefore should not be performed—in patients receiving the drug
   Physical Assessment: A list, by organ system, of those data 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
2. ***Potential Drug-related Nursing Diagnoses.*** This section lists those nursing diagnoses that are frequently made in patients as a result of their receiving the drug and that should therefore be considered when providing care of such a patient. These diagnoses frequently relate to the more common adverse effects produced by the drug. Nursing diagnoses related to any of the underlying disease states that are indications for the drug are considered beyond the scope of this handbook.
3. ***Interventions.*** Those nursing activities that should be undertaken in the course of caring for a patient who is receiving the drug are listed in chronologic order. The section includes interventions related to drug administration, the provision of comfort and safety measures, and a list of specific *patient teaching points* in a format that can easily be transferred to the actual clinical situation.
4. ***Evaluation.*** Drug administration should be followed by careful evaluation of the patient's therapeutic response, as well as evaluation of possible adverse reactions and drug–drug or drug–laboratory test interactions. In addition, the efficacy of the nursing interventions and the adequacy of patient teaching must be evaluated. Evaluation is an intrinsically important aspect of the nursing process as applied to drug therapy. In this handbook the parameters for evaluation are generally either listed in an earlier section of the monograph or follow obviously from material presented earlier. For example, most of the parameters relevant to evaluating the therapeutic response follow from the specific indication for the drug; the parameters relevant to evaluating adverse effects follow from the specific adverse effects attributable to the drug and are listed in the physical assessment section; and the parameters relevant to evaluating the efficacy of nursing interventions and patient teaching follow from the specific interventions and patient teaching provided. Thus, to avoid repetition, a specific evaluation section has been included only when new material must be introduced for evaluation, such as serum drug levels for

drugs whose efficacy and safety are made more optimal by the monitoring of serum levels and appropriate adjustment of drug dosage.

To prevent the handbook from becoming an unwieldly and less useful volume that could hardly be called a *hand*book, a prototype drug has been chosen for drug classes that contain many similar drugs. The prototype drug monograph serves as a reference for the monographs of nonprototype drugs in the class, which are complete in themselves but provide nursing considerations in a space-saving format under only one heading, "Basic Nursing Implications."

Appendixes I and II contain information about fixed-combination drugs and biologicals (vaccines and globulins), respectively, information that did not lend itself to the drug monograph format. Appendix I gives the dosages of some fixed-combination drugs, especially those that have constituents that are not administered alone. This appendix is arranged alphabetically by therapeutic drug classes (analgesics, antihypertensives, etc.) and is best accessed through the index. Fixed-combination drugs are, of necessity, listed in the index by their *brand* names (those few formulations that have nonproprietary names, *e.g.*, co-trimoxazole and carbapenem, are also indexed by their nonproprietary name); each entry indicates the active drugs in the combination and a specific page reference to Appendix I if the dosage of the drug is included therein.

Appendix II, commonly used vaccines and globulins, gives the indication, dosage, contraindications, and the basic nursing implications the nurse needs to know for the safe and effective administration of these agents.

Two other appendixes give commonly used equations for calculating pediatric dosage when adult dosage is known (Appendix III) and brief bibliographic information (Appendix IV).

Potentially unfamiliar abbreviations are defined when first used in a monograph or appendix. In addition, all abbreviations are defined in the front of the book for easy reference, as are FDA Pregnancy Categories and Schedules of Controlled Substances.

It is hoped that the overall organization and concise, straightforward presentation of the material in this handbook will make it a readily used and clinically useful reference for the nurse who needs easily accessible information to facilitate the provision of drug therapy within the framework of the nursing process.

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Abbreviations

>	greater than
≥	greater than or equal to
<	less than
≤	less than or equal to
ACT	activated clotting time
ACTH	adrenocorticotropic hormone
ADH	antidiuretic hormone
AIDS	acquired immunodeficiency syndrome
ALA	delta-aminolevulinic acid
ALL	acute lymphocytic leukemia
ALT	alanine transferase (formerly called SGPT—see below)
AML	acute myelogenous leukemia
ANA	antinuclear antibodies
APTT	activated partial thromboplastin time
ARC	AIDS-related complex
ARV	AIDS-related virus
AST	aspartate transferase (formerly called SGOT—see below)
AV	atrioventricular
bid	twice a day (*bis in die*)
BP	blood pressure
BSP	bromsulphalein
BUN	blood urea nitrogen
C	centigrade, Celsius
CAD	coronary artery disease
c-AMP	cyclic adenosine monophosphate
CBC	complete blood count
CCr	creatinine clearance
CDC	Centers for Disease Control
CGH	chorionic gonadotropic hormone
CHD	coronary heart disease
CHF	congestive heart failure
CNS	central nervous system
COPD	chronic obstructive pulmonary disease
CPK	creatine phosphokinase
CPR	cardiopulmonary resuscitation
CSF	cerebrospinal fluid
CTZ	chemoreceptor trigger zone
CVA	cerebrovascular accident
CVP	central venous pressure
CVS	cardiovascular system
DEA	Drug Enforcement Administration
DIC	disseminated intravascular coagulation
dl	deciliter (100 ml)
DNA	de(s)oxyribonucleic acid
DTP	diphtheria-tetanus-pertussis (vaccine)
DVT	deep vein thrombosis
ECG	electrocardiogram
ECT	electroconvulsive therapy
EEG	electroencephalogram
EENT	eye, ear, nose, and throat
F	Fahrenheit
FDA	Food and Drug Administration
FSH	follicle-stimulating hormone
GABA	gamma-aminobutyric acid
GFR	glomerular filtration rate
GGTP	gamma-glutamyl transpeptidase
GI	gastrointestinal
gm	gram
G-6-PD	glucose-6-phosphate dehydrogenase
GU	genitourinary
h	hour
HBIG	hepatitis B immune globulin

Hct	hematocrit
HDL	high-density lipoproteins
Hg	mercury
Hgb	hemoglobin
Hib	*Hemophilus influenzae* type b
HIV	human immunodeficiency virus
HPA	hypothalamic-pituitary-adrenal (axis)
HR	heart rate
hs	at bedtime (*hora somni*: at the hour of sleep)
HTLV III	human T-cell lymphotropic virus type III
IHSS	idiopathic hypertrophic subaortic stenosis
I & O	intake and output
IM	intramuscular
IOP	intraocular pressure
IPPB	intermittent (or inspiratory) positive pressure breathing
IV	intravenous
JVP	jugular venous pressure
kg	kilogram
L	liter or liters
lb	pounds
LDH	lactic dehydrogenase
LDL	low-density lipoproteins
LE	lupus erythematosus
LH	luteinizing hormone
LH-RH	luteinizing hormone-releasing hormone
LRI	lower respiratory tract infection
m	meter
MAO	monoamine oxidase
mcg	microgram
mg	milligram
MI	myocardial infarction
min	minute(s)
ml	milliliter
ng	nanogram
NMS	neuroleptic malignant syndrome
NPO	nothing by mouth (*nihil per os*)
NSAID	nonsteroidal anti-inflammatory drug
OTC	over-the-counter
P	pulse
PABA	para-aminobenzoic acid
PAT	paroxysmal atrial tachycardia
PBG	porphobilinogen
PBI	protein-bound iodine
PCWP	pulmonary capillary wedge pressure
PDA	patent ductus arteriosus
PE	pulmonary emboli
PG	prostaglandin
*p*H	hydrogen ion concentration
PID	pelvic inflammatory disease
PMS	premenstrual syndrome
PO	orally, by mouth (*per os*)
PRN	when required (*pro re nata*)
PT	prothrombin time
PTT	partial thromboplastin time
PVCs	premature ventricular contractions
q	each, every (*quaque*)
qd	every day (*quaque die*)
qid	four times a day (*quater in die*)
R	rate, usually with reference to respiratory rate
RBC	red blood cell
RDA	recommended daily (dietary) allowance
REM	rapid eye movement
RNA	ribonucleic acid
RSV	respiratory syncytial virus
SBE	subacute bacterial endocarditis
SA	sinoatrial
SC	subcutaneous
SGOT	serum glutamic-oxaloacetic transaminase (now often called AST)
SGPT	serum glutamic-pyruvic transaminase (now often called ALT)
SIADH	syndrome of inappropriate antidiuretic hormone secretion
SLE	systemic lupus erythematosus
SMA-12	sequential multiple analysis-12
SRS-A	slow-reacting substance of anaphylaxis
T	temperature
T_3	triiodothyronine
T_4	thyroxine (tetraiodothyronine)
TB	tuberculosis
TCA	tricyclic antidepressant
TCID	tissue culture infectious doses
TIA	transient ischemic attack
tid	three times a day (*ter in die*)
U	units
UPG	uroporphyrinogen
URI	upper respiratory (tract) infection
UTI	urinary tract infection
VLDL	very low density lipoproteins
WBC	white blood cell
WBCT	whole blood clotting time

FDA pregnancy categories

The Food and Drug Administration has established five categories to indicate the potential of a systemically absorbed drug for causing birth defects. The key differentiation among the categories rests on the degree (reliability) of documentation and the risk-benefit ratio.

Category A: Adequate studies in pregnant women have not demonstrated a risk to the fetus in the first trimester of pregnancy, and there is no evidence of risk in later trimesters.
Category B: Animal studies have not demonstrated a risk to the fetus, but there are no adequate studies in pregnant women.—*or*—Animal studies have shown an adverse effect, but adequate studies in pregnant women have not demonstrated a risk to the fetus during the first trimester of pregnancy and there is no evidence of risk in later trimesters.
Category C: Animal studies have shown an adverse effect on the fetus, but there are no adequate studies in humans; the benefits from the use of the drug in pregnant women may be acceptable despite its potential risks.—*or*—There are no animal reproduction studies and no adequate studies in humans.
Category D: There is evidence of human fetal risk, but the potential benefits from the use of the drug in pregnant women may be acceptable despite its potential risks.
Category X: Studies in animals or humans demonstrate fetal abnormalities or adverse reaction reports indicate evidence of fetal risk. The risk of use in a pregnant woman clearly outweighs any possible benefit.

Regardless of the designated Pregnancy Category or presumed safety, *no* drug should be administered during pregnancy unless it is clearly needed.

DEA schedules of controlled substances

The Controlled Substances Act of 1970 regulates the manufacturing, distribution, and dispensing of drugs that are known to have abuse potential. The Drug Enforcement Agency (DEA) is responsible for the enforcement of these regulations. The controlled drugs are divided into five DEA schedules based on their potential for abuse and for physical and psychological dependence.

Schedule I (C-I): High abuse potential and no accepted medical use (heroin, marijuana, LSD)
Schedule II (C-II): High abuse potential with severe dependence liability (narcotics, amphetamines, and barbiturates)
Schedule III (C-III): Less abuse potential than Schedule II drugs and moderate dependence liability (nonbarbiturate sedatives, nonamphetamine stimulants, limited amounts of certain narcotics)
Schedule IV (C-IV): Less abuse potential than Schedule III and limited dependence liability (some sedatives, antianxiety agents, and non-narcotic analgesics)
Schedule V (C-V): Limited abuse potential. Primarily small amounts of narcotics (codeine) used as antitussives or antidiarrheals. Under federal law, limited quantities of certain Schedule V drugs may be purchased without a prescription directly from a pharmacist. The purchaser must be at least 18 years of age and must furnish suitable identification. All such transactions must be recorded by the dispensing pharmacist.

Prescribing physicians and dispensing pharmacists must be registered with the DEA, which also provides forms for the transfer of Schedule I and II substances and establishes criteria for the inventory and prescribing of controlled substances. State and local laws are often more stringent than federal law.

Contents

acebutolol hydrochloride (a se byoo' toe lole)

Sectral

Drug classes

Beta-adrenergic blocking agent (β_1-selective); antiarrhythmic drug; antihypertensive drug

Therapeutic actions

Competitively blocks beta-adrenergic receptors in the heart and juxtaglomerular apparatus, thereby reducing the influence of the sympathetic nervous system on these tissues and in turn decreasing the excitability of the heart, as well as cardiac output and the release of renin, and lowering blood pressure.

Indications

- Hypertension, as a Step 1 agent, alone or with other drugs, especially diuretics
- Cardiac arrhythmias, especially supraventricular tachycardia, and ventricular tachycardias induced by digitalis or catecholamines

Adverse effects

Although acebutolol mainly blocks β_1-receptors at low doses, it also blocks β_2-receptors at higher doses; many of the adverse effects are extensions of therapeutic actions at β_1-adrenergic receptors or are due to blockade of β_2-receptors.

- Bradycardia, CHF, cardiac arrhythmias, sinoatrial or AV nodal block, tachycardia
- Peripheral vascular insufficiency, claudication, CVA, pulmonary edema, hypotension
- Dizziness, vertigo, tinnitus, fatigue, emotional depression, paresthesias, sleep disturbances, hallucinations, disorientation, memory loss, slurred speech (Because acebutolol is less lipid-soluble than propranolol, it is less likely to penetrate the blood–brain barrier and cause CNS effects.)
- Bronchospasm, dyspnea, cough, bronchial obstruction, nasal stuffiness, rhinitis, pharyngitis (less likely than with propranolol)
- Hyperglycemia or hypoglycemia
- Gastric pain, flatulence, constipation, diarrhea, nausea, vomiting, anorexia
- Ischemic colitis, renal and mesenteric arterial thrombosis, retroperitoneal fibrosis, hepatomegaly, acute pancreatitis
- Impotence, decreased libido, Peyronie's disease, dysuria, nocturia, frequent urination
- Joint pain, arthralgia, muscle cramps; development of antinuclear antibodies
- Rash, pruritus, sweating, dry skin

- Eye irritation, dry eyes, conjunctivitis, blurred vision
- Allergic reactions: pharyngitis, erythematous rash, fever, sore throat, laryngospasm, respiratory distress
- Decreased exercise tolerance
- Elevated serum transaminase, alkaline phosphatase, and LDH

Dosage

Adult

Hypertension: Initially 400 mg/day in 1 or 2 doses PO; usual maintenance dosage range is 200–1200 mg/day.

Ventricular arrhythmia: 200 mg bid PO; increase dosage gradually until optimum response is achieved (usually at 600–1200 mg/day).

Geriatric

Because bioavailability increases twofold, lower doses may be required; do not exceed 800 mg/day maintenance dosage.

Impaired renal function

Reduce daily dose by 50% when creatinine clearance is <50 ml/min; reduce by 75% when creatinine clearance is <25 ml/min.

Pediatric

Safety and efficacy not established.

Basic nursing implications

- Assess for disorders that are contraindications: sinus bradycardia, second- or third-degree heart block, cardiogenic shock, CHF.
- Arrange for dosage reduction in renal failure (an active metabolite of acebutolol is excreted in the urine).
- Use caution if administering this drug to the following:
  - Any patient with diabetes or thyrotoxicosis. Acebutolol can mask the usual cardiac signs of hypoglycemia and thyrotoxicosis.
  - Any patient with asthma or COPD, or with impaired hepatic function
- Do not administer to pregnant patients or nursing mothers; acebutolol is concentrated in breast milk, is in Pregnancy Category B; adverse effects on neonate are possible.
- Monitor for the following drug interactions with acebutolol:
  - Increased effects of acebutolol with **catecholamine-depleting drugs, captopril, methimazole, propylthiouracil, chlorpromazine, cimetidine, oral contraceptives, furosemide, hydralazine, IV phenytoin, verapamil, nifedipine**
  - Decreased effects of acebutolol with **thyroid hormones, norepinephrine, isoproterenol, dopamine, dobutamine, indomethacin, salicylates**
  - Increased effects of **succinylcholine, tubocurarine** with acebutolol
  - Prolonged hypoglycemic effects of **insulin**
  - Increased "first-dose response" to **prazosin**
  - Paradoxical hypertension when **clonidine** is given with beta-blockers; increased rebound hypertension when **clonidine** is discontinued in patients on beta-blockers
  - Decreased bronchodilator effects of **theophylline,** and decreased bronchial and cardiac effects of **sympathomimetics** with acebutolol
- Monitor for possible false results with **glucose** or **insulin tolerance tests.**
- Assess and record the patient's baseline body weight, skin condition, neurologic status, P, BP, ECG, respiratory status, kidney and thyroid function, blood and urine glucose.
- Do not discontinue drug abruptly after chronic therapy—hypersensitivity to catecholamines may have developed, causing exacerbation of angina, MI, and ventricular dysrhythmias; taper drug gradually over 2 wk with monitoring.
- Consult with physician about withdrawing drug if patient is to undergo surgery (withdrawal is controversial).
- Provide side rails and assistance with walking if CNS, vision changes occur.
- Position patient to decrease effects of edema.

- Provide frequent, small meals if GI effects occur.
- Provide appropriate comfort measures to deal with eye, GI, joint, and dermatologic effects.
- Provide support and encouragement to deal with drug effects and disease.
- Teach patient not to stop taking the drug unless instructed to do so by a health-care provider; to avoid OTC medications; to avoid driving or dangerous activities if CNS effects occur; to report any of the following: difficulty breathing, night cough, swelling of extremities, slow pulse, confusion, depression, rash, fever, sore throat.

See propranolol, the prototype beta blocker, for detailed clinical information and application of the nursing process.

acetaminophen (a seat a mee' noe fen) *OTC preparation*

N-acetyl-p-aminophenol, APAP

Suppositories: *Acephan, Anuphen, Neopap, Suppap*

Oral: *A'Cenol, Aceta, Anacin-3, Datril, Dolanex, Genebs, Halenol, Liquiprin, Mejoralito, Oraphen, Panadol, Panex, Pedric, Phenaphen, St. Joseph's Aspirin Free, Tempra, Tylenol*

Drug classes
Antipyretic; analgesic (non-narcotic)

Therapeutic actions
Antipyretic; Acts directly on the hypothalamic heat-regulating center to cause vasodilation and sweating; inhibits the actions of exogenous pyrogens on the hypothalamus, probably by inhibiting the synthesis of prostaglandins.

Analgesic: Site and mechanism of action are unclear.

Indications
- Analgesic-antipyretic in patients with aspirin allergy, hemostatic disturbances, bleeding diatheses, upper GI disease, gouty arthritis
- Arthritis and rheumatic disorders involving musculoskeletal pain (but lacks clinically significant antirheumatic and anti-inflammatory effects)
- Common cold, flu, other viral and bacterial infections accompanied by pain and fever

Adverse effects
- Hepatic toxicity and failure, jaundice
- Hematologic effects—methemoglobinemia—cyanosis, headache, chest pain, dyspnea; hemolytic anemia—hematuria, anuria, acute kidney failure; neutropenia, leukopenia, pancytopenia, thrombocytopenia
- Hypersensitivity reactions: Rash, fever
- Hypoglycemia
- Renal tubular necrosis, myocardial damage when doses of 5–8 gm/day are ingested daily for several weeks or when doses of 4 gm/day are ingested for a year

Dosage

Adult
325–650 mg q 4–6 h PO or by suppository; or 1000 mg 3 to 4 times/day. Do not exceed 4 gm/day.

Pediatric
Doses may be repeated 4 to 5 times/day; do not exceed 5 doses/24 h.

Age	*Dosage (mg)*	*Age*	*Dosage (mg)*
0–3 mo	40	4–5 yr	240
4–11 mo	80	6–8 yr	320

(Table continued on next page.)

Age	*Dosage (mg)*	*Age*	*Dosage (mg)*
1–2 yr	120	9–10 yr	400
2–3 yr	160	11 yr	480

The nursing process and acetaminophen therapy

Pre-drug-therapy assessment

Patient history

Contraindications and cautions
- Allergy to acetaminophen
- Impaired hepatic function, chronic alcoholism—predispose to hepatotoxicity
- Pregnancy—crosses the placenta; appears safe for short-term use at recommended dosage during all stages of pregnancy but use should be minimized
- Lactation—secreted in breast milk in milk:plasma ratio of 0.81–1.42; safety not established, but no adverse effects in nursing infants have been reported

Drug–drug interactions
- Increased analgesic effect if taken with **caffeine**
- Increased plasma levels of acetaminophen with **diflunisal**
- Increased toxicity if taken with chronic, excessive **ethanol** ingestion
- Increased absorption of acetaminophen if taken with **metoclopramide**
- Decreased absorption of acetaminophen if taken concurrently with drugs that delay gastric emptying—**anticholinergics, narcotics,** etc., **activated charcoal**
- Decreased half-life of acetaminophen if taken with **oral contraceptives**
- Increased serum level of **chloramphenicol** if given with acetaminophen
- Increased hypoprothrombinemic effect of **oral anticoagulants** when taken with acetaminophen

Physical assessment
General: Skin—color, lesions; temperature
GI: Liver evaluation
Laboratory Tests: CBC, liver and kidney function tests

Potential drug-related nursing diagnoses
- Alteration in comfort related to dermatologic reactions
- Potential for injury related to hematologic effects
- Knowledge deficit regarding drug therapy

Interventions
- Do not exceed the recommended dosage.
- Consult physician if needed for children under 3 yr of age.
- Consult physician if needed for longer than 10 days.
- Consult physician if continued fever, severe or recurrent pain occurs—these may indicate serious illness.
- Provide additional comfort measures to alleviate pain or discomfort.
- Monitor environment for patient comfort—temperature, noise, lights, etc.
- Administer drug with food if GI upset is noted.
- Discontinue drug if hypersensitivity reactions occur.
- Acetaminophen toxicity: If overdose occurs, monitor serum levels regularly; **N-acetylcysteine** should be available as a specific antidote; basic life-support measures may be necessary.
- Avoid the use of multiple preparations containing acetaminophen; carefully check all OTC products.

Patient teaching points
- Name of drug
- Dosage of drug; do not exceed recommended dose; do not take for longer than 10 days.
- Disease being treated: Take the drug only for those complaints indicated; drug is not an anti-inflammatory agent.
- Tell any physician, nurse, or dentist who takes care of you that you are taking