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MODERN DRUG ENCYCLOPEDIA

AND THERAPEUTIC INDEX

A COMPENDIUM

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AND THERAPEUTIC INDEX

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A COMPENDIUM

The composition of most of the preparations described in this work is protected by U. S. Letters Patent; many of the proprietary names of the products are trade-marked and registered at the U. S. Patent Office by the firms whose names are mentioned with these products.

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MODERN DRUG ENCYCLOPEDIA and THERAPEUTIC INDEX

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FOREWORD

Therapeutics is a dynamic aspect of medicine, restricted only by the ingenuity of the physician and the responsibility of governmental agencies. Both must document efficacy and safety. At present both efficacy and safety are under review by Federal agencies in collaboration with scientific advisory committees.

As a result of our commitment to accuracy and timeliness, the Sixteenth Edition of THE MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX is still intended to be primarily a ready reference to the many therapeutic preparations presently available to physicians rather than a textbook of pharmacology or a manual of therapeutics.

All preparations are listed alphabetically; descriptive monographs appear only under the generic name of individual drugs or of the primary ingredient of combination products. The trade names of generic drugs are given at the end of each monograph in the section on availability. Multiple combination products, however, are described under their trade names. In addition, a number of pharmacologically similar preparations, such as the penicillins and the phenothiazines, are discussed in one comprehensive monograph rather than in separate sections. The therapeutic indications listed are those provided by the manufacturer and approved by the U.S. Food and Drug Administration.

There has been increasing concern about the problem of drug interactions in the treatment of patients, and numerous books and articles have been published recently providing comprehensive lists of such interactions. This has produced in many physicians what has been called the "drug interaction anxiety syndrome." Many of these lists include interactions based on observations which may not be clinically significant and are the result of isolated reports or mere impressions. Admittedly, there are many real and potentially serious interactions such as the effect of some pharmaceuticals on anticoagulant metabolism, which may result in serious hemorrhage. However, we have resisted the temptation to provide another comprehensive list which might only exacerbate the "interaction syndrome" and have incorporated potentially adverse interactions in the individual monographs.

Except for certain diagnostic agents, only the prescription products of manufacturing pharmaceutical firms having more than local distribution are included. We have been as accurate as is humanly possible; however, should you find any discrepancy, we would appreciate your notifying us so that the correction can be included in the supplement, MODERN DRUGS.

In addition to the listing of pharmaceuticals and biologicals, a Therapeutic Index, a Manufacturers' Index and a General Index are included. The appropriate Drug Enforcement Administration (DEA) schedule is given for preparations under DEA control. Although we have made every effort to keep the listings up-to-date, the schedule is frequently revised. The manufacturer or the DEA should be consulted if there is uncertainty. A review of the Controlled Substances Act of 1970 (PUBLIC LAW 91-513) is included.

An important feature of the ENCYCLOPEDIA is the Glossary of Pharmaceutical Dose Forms prepared, as for prior editions, by Dr. Charles L. Winek. In addition to updating the Glossary, Dr. Winek has provided a section on Drug Blood Levels for use in both therapeutic and toxicologic situations.

The introduction of new, potent medications imposes an enormous responsibility on the physician. Not only must he be aware of the availability, method of use and the indications and contraindications of these agents, but through continuing education he must also be familiar with unusual problems that may be encountered.

THE MODERN DRUG ENCYCLOPEDIA attempts to compile this necessary information into a concise, up-to-date, quick reference form. To keep the ENCYCLOPEDIA current a supplementary publication, MODERN DRUGS, is provided. This supplement contains descriptions of new preparations released after publication of the ENCYCLOPEDIA, and also provides new information about older preparations if it becomes available.

THE MODERN DRUG ENCYCLOPEDIA and MODERN DRUGS provide the physician with complete and authoritative information on all pharmaceutical agents whether established or newly released.

Arthur J. Lewis, M.D.

Memphis, Tennessee, 1981

THE MODERN DRUG ENCYCLOPEDIA— FEATURES AND USE

For your convenience, THE MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX is divided into four basic reference sections, cross referenced to lead you directly to the information you need. They are:

PHARMACEUTICALS AND BIOLOGICALS

Listed in alphabetical order by generic or trade name are the descriptions of the products of manufacturers whose nationally distributed prescription drugs are included. When the preparation is a single substance, the trade name will indicate the generic name under which the full product description can be found. When a combination product has a principal ingredient, there is a cross reference to the listing of that generic ingredient under which the complete product description is given. Use this section if you know the generic or trade name of the drug and wish to verify its composition, action, usage, administration, contraindications, warnings, adverse reactions and availability.

THERAPEUTIC INDEX

This section provides an alphabetical listing of products by therapeutic indication. All pharmaceuticals and biologicals described in this edition are classified under their therapeutic functions and the page number of the complete description is given. Use this section to locate the drugs available for the specific treatment required.

MANUFACTURERS' INDEX

This is an alphabetical listing of the manufacturers and their products. It is a complete list of all the drugs described in the first section of the Encyclopedia, followed by the page number on which the product description appears. Use this section if you know the name of the manufacturer, but not the name of the drug or its therapeutic use.

GENERAL INDEX

This section is a combined index, containing alphabetized reference to all the preparations described in the first section, listing both generic and trade names with page locations. Use this section as your master index to any description or reference in THE MODERN DRUG ENCYCLOPEDIA.

TO LOCATE A DRUG NOT IN THE ENCYCLOPEDIA

Refer to MODERN DRUGS, supplement to THE MODERN DRUG ENCYCLOPEDIA. New drugs made available since publication of this volume are described in this supplement.

GLOSSARY

A directory of pharmaceutical trade-name dosage forms and their definitions.
Compiled by Charles L. Winek, Ph.D., Duquesne University, School of Pharmacy.

General Terms: LA = long-acting
LP = long-acting principle
RA = repeat-action
SA = sustained-action
TC = time-coat
TD = time-disintegration
UF = ultrafine particles for greater absorption, in capsule form

Abboject *(Abbott):* Disposable syringe for injection.
Abbo-Liter *(Abbott):* A type container for sterile solutions.
Abbo-Vac *(Abbott):* A type vacuum container with solution for collecting blood.
Aerohaler *(Abbott):* A device for administering powders in aerosols to the upper respiratory tract and lungs, consisting of a discharge chamber with interchangeable mouth and nose pieces.
Aerotrol *(Abbott):* Controlled-dose nebulizer for oral inhalation.
Aspirol *(Lilly):* Breakable, cloth-covered, thin, glassed, inhalant container.
Bitab *(Merrell-National):* Double-strength tablet.
Buccalet *(Ciba):* Kidney-shaped tablet for buccal or sublingual absorption.
Calendar Pak *(Searle):* Dosage-reminder container for patient convenience.
Caplet *(Winthrop):* Elongated, uncoated tablet.
Capsulette *(Armour):* Capsule-shaped tablet.
Cartrid *(Lilly):* Single-dose cartridge (injectable).
Centri-Vac *(Baxter):* Sterile, nonpyrogenic, vacuum container for collecting blood and for preparing plasma or serum by centrifugation.
Cherro-Chew Tab *(Philips Roxane):* Flavored, chewable tablet.
Chewable *(Squibb):* Soft, soluble tablet.
Chronosule *(Schering):* Sustained-release capsule.
Chronotab *(Schering):* Sustained-action tablet.
Clipsule *(Lederle):* Squeezable gelatin capsule, convenient for administration to children.
Color-Break Ampul *(Astra):* Ampul with colored line at point of breakage.
Compack *(Searle):* Purse-container dispenser for oral contraceptives with patient schedule reminder.
Dialpak *(Ortho):* Plastic tablet-dispenser with visible dosage schedule for patient reminder.
Disket *(Lilly):* Inscribed tablet.
Dispensajar *(Dome):* Special-design plastic jar with disc allowing delivery of a small amount of ointment or cream.
Dospak *(Upjohn):* Unit package of scheduled medication.
Dospan *(Merrell-National):* Continuous-release tablet.
Dosule *(Organon):* Measured dose of hormone-containing ointment in a tube.
Dri-Cap *(Lederle):* Dry-filled, sealed capsule.
Dropperette *(Smith, Miller & Patch):* Sterile, disposable plastic tube containing sterile solution specifically designed for aseptic technic in ophthalmic surgery.
Drop-Tainer *(Alcon):* Plastic container of ophthalmic solution with built-in tip.
Duchette *(Purdue Frederick):* Individual package of douche powder.
Dulcet *(Abbott):* Soluble, candy-flavored, cube-shaped sugar tablet.

Durabond *(Mallinckrodt):* Long-acting medication—usually tannate salts.
Duracap *(Glaxo):* Long-acting capsules.
Dura-Tab *(Berlex):* Sustained-action tablet.
Emplet *(Parke-Davis):* Enteric-coated tablet with a distinctive flame-colored coating.
Encoat *(Merrell-National):* Enteric-coated tablet.
Enduret *(Boehringer-Ingelheim):* Prolonged-action tablet.
Enkeric *(Rorer):* Special brand of enteric coating.
Enseal *(Lilly):* Time-disintegrating enteric-coated tablet.
Enterab *(Abbott):* Enteric-coated tablet.
Envule *(Glenwood):* Pure, drug "envelope" sealed against contamination, moisture and light.
Extentab *(Robins):* Extended-action tablet.
Filmtab *(Abbott):* A tablet coated with a thin film for rapid disintegration in the stomach.
Flexidose *(Squibb):* Controlled-dose calibrated dropper.
Flo-Pak *(Burroughs Wellcome):* Dry, sterile powder in flexible plastic bottle with piercing device to introduce drug into intravenous solutions.
Fluor-I-Strip *(Ayerst):* Sterile individual ophthalmic applicators.
Gelseal *(Lilly):* Sealed gelatin capsule.
Glosset *(Winthrop):* Sublingual tablet.
Gradumet *(Abbott):* Long-release tablet.
Granucap *(Tutag):* Sustained-release capsule.
Gyrocaps *(Dooner):* Time release capsules.
Hypoglossal *(Carnrick):* Capsule for sublingual or buccal administration.
Hypoloid *(Burroughs Wellcome):* Identifying trademark for injectable solutions.
Immunogen *(Parke-Davis):* Identifying trademark for specific antigenic substances obtained from the surface of bacterial cells (ecto-antigens) substantially free of bacterial autolysates and extraneous protein.
Infatab *(Parke-Davis):* Triangular-shaped, grooved tablet, flavored and intended for pediatric use.
Inlay-Tab *(Dorsey):* Oblong, capsule-shaped, flat tablet with two medications, one inlayed in the other, involving two different colors.
Isoject *(Pfizer):* A prefilled, sterile, disposable injection system.
Jetomizer *(Wyeth):* A convenient and effective device for application of medication high in the nasal passages.
Juvelet *(Dorsey):* Time-release tablet for children, with a special tasteless coating.
Kapseal *(Parke-Davis):* A hard capsule that is sealed by a band of gelatin at the points of closure.
Koff-Ball *(Philips Roxane):* A chewable, gelatin capsule containing liquid medication.
Lacrivial *(Cooper):* Sterilized, plastic container of ophthalmic solution with dropper top.
Linguet *(Ciba):* Tablet for mucosal absorption.
Lingusorb *(Ayerst):* Buccal and sublingual tablet.
Liquifilm *(Allergan):* Ophthalmic drops with a plastic polymer vehicle that forms a clear, elastic film on the lid and lid margins releasing the active ingredients over a prolonged period.
Lontab *(Ciba-Geigy):* Long-acting tablet.
Lozi-Tab *(Davies Rose Hoyt):* Lozenge type.
Loz-Tablet *(Warren-Teed):* Tablet designed to be dissolved in mouth for 5 minutes before swallowing.
Lyovac *(Merck Sharp & Dohme):* Vacuum-desiccated, lyophilized preparation restored to original volume by addition of accompanying diluent.
Mandet *(Lederle):* Flavored, chewable tablet.
Medihaler *(Riker):* Aerosol device.
Medilet *(Schering):* Color-flecked tablet for children.
Medule *(Upjohn):* Medication coated for prolonged action.
Melet *(Dow):* Troche-type chewable tablet.
Membrette *(Wyeth):* Soluble tablet for administration of hormone substances by mouth.
Memorette *(Syntex):* Plastic tablet dispenser with visible dose schedule.
Merseal *(Merck Sharp & Dohme):* Film-coated tablet.
Micropellet *(Schering):* Microscopic crystalline form.
Mistometer *(Winthrop):* Oral inhalation apparatus.
Mix-O-Vial *(Upjohn):* A two-compartment vial.

Mono-Drop *(Winthrop):* A plastic, squeezable, dropper-container.
Mucorette *(Schering):* Tablet for oromucosal absorption.
Oret *(Smith, Miller & Patch):* Compressed tablet.
Ovoid *(Winthrop):* Sugar-coated, oval-shaped tablet.
Pakette *(Mead Johnson):* Purse dispenser with dosage schedule.
Pedlatab *(Philips Roxane):* Flavored, compressed tablet.
Pharynget *(Lederle):* Troche.
Pilpak *(Wyeth):* Purse-compack dispenser with visible day/dosage schedule.
Plasma-Vac *(Baxter):* Sterile, nonpyrogenic, vacuum-container for pooling, storing and administering plasma or serum aspirated from other containers.
Plastule *(Ives):* Compressed tablet.
Plateau Cap *(Marion):* Sustained-release capsule.
Pliapak *(Abbott):* Disposable, plastic bag for blood.
Pressule *(Squibb):* Individual dose of medication in a squeezable plastic container.
Pressure Pak *(Abbott):* An aerosol-type container.
Prestab *(McNeil):* Prolonged-duration tablet.
Pulvo-Cap *(Dow):* Dry-filled capsule.
Pulvule *(Lilly):* Filled, bullet-shaped, hard-gelatin capsule.
Purogenated *(Lederle):* A highly refined biological product which has been purified by chemical and physical means.
Radiocap *(Abbott):* Capsule containing a radioactive isotope.
Rectisert *(Ayerst):* Single-dose rectal applicator.
Repetab *(Schering):* Repeat-action tablet.
Respihaler *(Merck Sharp & Dohme):* Aerosol for oral inhalation.
Saftiflask *(Cutter):* Flask for storage and administration of intravenous solution.
Saftifuge *(Cutter):* Completely-closed, vacuum flask for withdrawal of blood for preparation of plasma by centrifugation.
Saftivac *(Cutter):* Completely-closed, vacuum flask for withdrawal of whole blood.
Savoret *(Lilly):* Medicated, flavored tablet.
Sequel *(Lederle):* Sustained-release capsule.
Serobacterin *(Merck Sharp & Dohme):* Identifying trademark for sensitized bacterial vaccine (bacterial vaccine treated with its corresponding immune serum).
Sheroid *(Cooper):* Special, gelatin-coated vitamin tablet.
Sifter Cartridge *(Abbott):* Small, plastic, disposable cartridge containing dry, powdered medicament to be used with the Aerohaler.
Singlet *(Dow):* Continuous-release dosage form.
Sofcream *(Merrell-National):* Foamed cream medication dispensed from an aerosol can.
Softab *(Stuart):* Soft tablet that melts in the mouth (no water needed).
Solodose *(Berlex):* Individual packette of powdered drug.
Soloid *(Burroughs Wellcome):* Identifying trademark for quickly-soluble product.
Solvet *(Lilly):* Soluble tablet.
Spansule *(Smith Kline & French):* Sustained-release capsule containing tiny colored pellets.
Spersoid *(Lederle):* Soluble, dispersible powder.
Sprayomizer *(Ayerst):* Special, squeeze container of throat spray.
Spraypak *(Smith Kline & French):* Soft, plastic container with spray top.
Steraject *(Pfizer):* Single-dose, disposable cartridge with sterile needle affixed, ready for injection.
Sterap *(Lilly):* Sterile envelope of powder medication for topical application.
Sterilope *(Abbott):* Sterilized, double envelope of powdered medication.
Steri-Tainer *(Ayerst):* Autoclaved container of ophthalmic solution with dropper top.
Steri-Vial *(Parke-Davis):* Sterilized, injectable vial of medication.
Sub-U-Tab *(Abbott):* Sublingual tablet.
Supposicone *(Searle):* Special-base suppository that needs no refrigeration.
Supposital *(Dorsey):* Special-shaped tablet for insertion into the vagina.
Supprette *(Webcon):* Water soluble base suppository.
Tabloid *(Burroughs Wellcome):* Trademarked name for tablet.
Tabule *(Mallinckrodt):* Elongated, capsule-shaped tablet.
Tastitab *(Roerig):* Soluble, flavored tablet.
Tembid *(Ives):* Special-base matrix tablet which allows controlled, gradual release of drug.
Tempule *(Armour):* Proportionate-release medication form.

Ten-Tab *(Riker):* Continuous-release tablet.
Testpac *(Upjohn):* A trial package of tablets to start medication.
Timecap *(Kremers-Urban):* Sustained-release capsule.
Timespan *(Roche):* Sustained-release tablet.
Timetab *(Kremers-Urban):* Tablet constructed for timed release of active ingredient. The therapeutic effect extends over a 10-12 hour period.
Titradose *(Ives):* Easily broken scored tablets.
Trablet *(Ames):* Trapezoid-shaped, enteric-coated tablet.
Transfuso Vac *(Baxter):* Sterile, nonpyrogenic, vacuum-container with anticoagulant; for drawing, storing, transporting and administering blood and for preparing plasma.
Trinidex *(Baxter):* Parenteral solution in Vacoliter Container which contains the vitamins: niacinamide, riboflavin and thiamine hydrochloride.
Tubex *(Wyeth):* Closed injection system with cartridge and needle unit.
Tubule *(Warren-Teed):* A single-dose, gelatin container of ointment for rectal application.
Turbinaire *(Merck Sharp & Dohme):* Intra-nasal applicator.
Tymcap *(Amfre-Grant):* Timed-disintegration capsule.
Tymtab *(Amfre-Grant):* Timed-disintegration tablet.
Unimatic *(Squibb):* Disposable syringe for intramuscular injection.
Univial *(Abbott):* A double-chambered, sterile vial usually containing in each chamber an active ingredient and diluent or agents which are not compatible on long standing. The chambers are separated by a diaphragm. When the material is to be used, one chamber is depressed, breaking the diaphragm. After solution or mixing, the material is withdrawn as in a rubber-stoppered vial.
Vaccine-Vial *(Cooper):* Rubber-capped, rubber-diaphragm vial containing injectable solution.
Vacoliter *(Baxter):* Dispensing container with ready-to-use, sterile, nonpyrogenic, parenteral solution under vacuum.
Vacule *(Merck Sharp & Dohme):* Rubber-diaphragm-capped vial containing injectable solution.
Vaporole *(Burroughs Wellcome):* Cloth-covered, breakable, thin-glassed inhalant container.
Wyseal *(Wyeth):* Special-coated tablet.
Zestab *(Block):* Chewable flavored tablet for pediatric use.

DRUG & CHEMICAL BLOOD LEVEL DATA*

This table has been prepared by Dr. Charles L. Winek, Chief Toxicologist of the Allegheny County Coroner's Office and Professor of Toxicology, Duquesne University School of Pharmacy, Pittsburgh, Pennsylvania.

The data contained in the table have been gathered from the literature and from personal experience. The values are not considered absolute, but are to be used as a guide in evaluating a given case. The values can be affected by dose, route of administration, absorption differences, age and sex, tolerance, method of analysis, pathological or disease state, etc. Users of the table are referred to *Winek's Toxicology Annual* and Chapter 72 in *Forensic Medicine*, Volume III by Tedeschi, Eckert and Tedeschi for chapters discussing the data, references to the data, and factors affecting blood level values.

DEFINITION OF BLOOD LEVELS

Therapeutic Blood Level: Fochtman and Winek defined a therapeutic blood level as that concentration of drug present in the blood (its serum or plasma) following therapeutically effective dosage in humans.

Toxic Blood Level: The concentration of drug or chemical present in the blood (its serum or plasma) that is associated with serious toxic symptoms in humans.

Lethal Blood Level: The concentration of drug or chemical present in the blood (its serum or plasma) that has been reported to cause death, or is so far above reported therapeutic or toxic concentrations that one can judge that it might cause death in humans.

DRUG	THERAPEUTIC or NORMAL	TOXIC	LETHAL
ACETAMINOPHEN (Tylenol)	1.0 - 2.0 mg%	15.0 mg%	150.0 mg%
ACETAZOLAMIDE (Diamox)	1.0 - 1.5 mg%	—	—
ACETOHEXAMIDE (Dymelor)	2.1 - 5.6 mg%	—	—
ACETONE	—	20.0 - 30.0 mg%	55.0 mg%
ACETYLSALICYLIC ACID (Salicylate)	2.0 - 10.0 mg%	15.0 - 30.0 mg%	50.0 mg%
ALDRIN	0.15 μg%	0.35 μg%	—
ALUMINUM	13.0 μg%	—	—
AMINOPHYLLINE (Theophylline)	1.0 - 2.0 mg%	3.0 - 4.0 mg%	21.0 - 25.0 mg%
AMITRIPTYLINE (Elavil)	12.0 - 25.0 μg%	>50.0 μg%	1.0 - 2.0 mg%
AMMONIA	50.0 - 170.0 μg%	—	—

Cont'd

DRUG & CHEMICAL BLOOD LEVEL DATA (Cont'd)

DRUG	THERAPEUTIC or NORMAL	TOXIC	LETHAL
AMPHETAMINE	2.0 - 3.0 μg%	50.0 μg%	200.0 μg%
ANTABUSE (Disulfiram)	0.25 mg%	—	—
ARSENIC	0.0 - 2.0 μg%	0.10 mg%	1.5 mg%
ATIVAN (Lorazepam)	2.0 - 5.0 μg%	—	—
AVENTYL (Nortriptyline)	12.0 - 16.0 μg%	0.05 mg%	1.3 mg%
BARBITURATES			
Short acting	0.1 mg%	0.7 mg%	1.0 mg%
Intermediate acting	0.1 - 0.5 mg%	1.0 - 3.0 mg%	3.0 mg% & >
Phenobarbital	1.5 - 3.9 mg%	4.0 - 6.0 mg%	8.0 - 15.0 mg% & >
Barbital	1.0 mg%	6.0 - 8.0 mg%	10.0 mg% & >
BENADRYL (Diphenhydramine)	1.0 - 10.0 μg%	0.5 mg%	1.0 mg% & >
BENEMID (Probenecid)	10.0 - 20.0 mg%	—	—
BENZEDREX (Propylhexedrine)	—	—	0.2 - 0.3 mg%
BENZENE	—	Any measurable amount	94.0 μg%
BERYLLIUM	Tissue levels generally used (lung & lymph)	—	—
BORON	0.08 mg%	4.0 mg%	5.0 mg%
BROMIDE	5.0 - 30.0 mg%	50.0 - 150.0 mg% (17 mEq/L.)	200.0 mg%
BROMPHENIRAMINE (Dimetane)	0.8 - 1.5 μg%	—	—
BUPIVACAINE (Marcaine)	0.25 mg%	1.0 mg%	—
BUTAZOLIDIN (Phenylbutazone)	10.0 mg%	—	—
CADMIUM	0.01 - 0.02 μg%	5.0 μg%	—
CAFFEINE	0.5 - 1.0 mg%	—	10.0 mg% & >
CARBAMAZEPINE (Tegretol)	0.8 - 1.2 mg%	1.5 mg%	—
CARBOCAINE (Mepivacaine)	0.25 mg%	1.0 mg%	—
CARBON MONOXIDE	1 %	15 - 35%	50%
CARBON TETRACHLORIDE	—	2.0 - 5.0 mg%	10 - 20 mg%
CARISOPRODOL (Rela, Soma)	1.0 - 4.0 mg%	6.0 mg%	—
CELONTIN (Methsuximide)	0.25 - 0.75 mg%	1.8 mg%	—
CHLORAL HYDRATE (Noctec)	0.2 - 1.0 mg%	10.0 mg%	25.0 mg%
CHLORDANE	0.1 μg%	0.25 μg%	—
CHLORDIAZEPOXIDE (Librium)	0.1 - 0.3 mg%	0.55 mg%	2.0 mg%
CHLOROFORM	—	7.0 - 25.0 mg%	39.0 mg%

Cont'd

DRUG & CHEMICAL BLOOD LEVEL DATA (Cont'd)

DRUG	THERAPEUTIC or NORMAL	TOXIC	LETHAL
CHLOROPROCAINE (Nesacaine)	0.2 - 0.4 mg%	—	—
CHLORPHENIRAMINE (Chlor-Trimeton)	1.7 μg%	2.0 - 3.0 mg%	—
CHLORPROMAZINE (Thorazine)	0.05 mg%	0.1 - 0.2 mg%	0.3 - 1.2 mg%
CHLORPROPAMIDE (Diabenese)	3.0 - 14.0 mg%	20.0 - 75.0 mg%	—
CHLORPROTHIXENE (Taractan)	4.0 - 30.0 μg%	40.0 - 80.0 μg%	—
CHLOR-TRIMETON (Chlorpheneramine)	1.7 μg%	2.0 - 3.0 mg%	—
CLONAPIN (Clonazepam)	0.5 - 5.0 μg%	—	—
CLONAZEPAM (Clonapin)	0.5 - 5.0 μg%	—	—
COCAINE	5.0 - 15.0 μg%	90.0 μg%	0.1 - 2.0 mg%
CODEINE	2.5 - 12.0 μg%	—	20.0 - 60.0 μg%
COMPAZINE (Prochlorperazine)	—	0.1 mg%	—
COPPER	0.1 - 0.15 mg%	0.54 mg%	—
COUMADIN (Warfarin)	0.1 - 1.0 mg%	—	—
CYANIDE	0.015 mg%	—	0.5 mg% & >
CYCLOPROPANE	13.0 mg%	—	—
DALMANE (Flurazepam)	0.05 - 0.15 mg%	0.25 mg%	—
DARVON (Propoxyphene)	5.0 - 20.0 μg%	30.0 - 60.0 μg%	80.0 - 200.0 μg%
DDT	1.3 μg%	—	—
DEMEROL (Meperidine)	0.03 - 0.10 mg%	0.5 mg%	3.0 mg%
DEPAKENE (Valproic Acid)	5.0 - 10.0 mg%	20.0 mg%	—
DESIPRAMINE (Norpramin)	15.0 - 30.0 μg%	50.0 μg & >	1.0 - 2.0 mg%
DIABENESE (Chlorpropamide)	3.0 - 14.0 mg%	20.0 - 75.0 mg%	—
DIAMOX (Acetazolamide)	1.0 - 1.5 mg%	—	—
DIAZEPAM (Valium)	0.05 - 0.25 mg%	0.5 - 2.0 mg%	2.0 mg% & >
DICUMAROL	2.0 mg%	7.0 mg%	—
DIELDRIN	0.15 μg%	15.0 - 30.0 μg%	—
DIETHYLPROPRION (Tenuate, Tepanil)	0.7 - 20.0 μg%	—	—
DIGITOXIN	2.0 - 3.5 μg%	—	32.0 μg%
DIGOXIN	0.06 - 0.20 μg%	0.21 - 0.90 μg%	1.5 μg%
DILANTIN (Phenytoin, Diphenylhydantoin)	1.0 - 2.0 mg%	2.0 - 5.0 mg%	10.0 mg% & >

Cont'd

DRUG & CHEMICAL BLOOD LEVEL DATA (Cont'd)

DRUG	THERAPEUTIC or NORMAL	TOXIC	LETHAL
DILAUDID (Hydromorphone)	—	—	10.0 - 30.0 μg%
DIMETANE (Brompheniramine)	0.8 - 1.5 μg%	—	—
DINITRO-o-CRESOL	—	3.0 - 4.0 mg%	7.5 mg%
DIPHENHYDRAMINE (Benadryl)	1.0 - 10.0 μg%	0.5 mg%	1.0 mg% & >
DIPHENOXYLATE (Lomotil)	1.0 μg%	—	—
DIPHENYLHYDANTOIN (Dilantin)	1.0 - 2.0 mg%	2.0 - 5.0 mg%	10.0 mg% & >
DISOPYRAMIDE (Norpace)	0.2 - 0.4 mg%	0.7 mg%	2.6 mg%
DISULFIRAM (Antabuse)	0.25 mg%	—	—
DIVINYL OXIDE	—	—	70.0 mg%
DOLOPHINE (Methadone)	30.0 - 110.0 μg%	0.2 mg%	0.4 mg% & >
DORIDEN (Glutethimide)	0.02 - 0.08 mg%	1.0 - 8.0 mg%	3.0 - 10.0 mg%
DOXEPIN (Sinequan)	10.0 - 25.0 μg%	50.0 - 200.0 μg%	1.0 mg% & >
DYMELOR (Acetohexamide)	2.1 - 5.6 mg%	—	—
ELAVIL (Amitriptyline)	12.0 - 25.0 μg%	>50.0 μg%	1.0 - 2.0 mg%
ENDRIN	0.3 μg%	3.0 μg%	—
EPHEDRINE	10.0 μg%	—	—
ETHANOL	—	100.0 mg% (legal intoxication)	350.0 mg% & >
ETHCHLORVYNOL (Placidyl)	0.05 - 0.5 mg%	2.0 - 10.0 mg%	15.0 mg%
ETHINAMATE (Valmid)	0.5 - 1.0 mg%	—	—
ETHOSUXIMIDE (Zarontin)	4.0 - 10.0 mg%	15.0 mg%	—
ETHYL CHLORIDE	—	—	40.0 mg%
ETHYL ETHER	90.0 - 100.0 mg%	—	140.0 - 189.0 mg%
ETHYLENE GLYCOL	—	150.0 mg%	200.0 - 400.0 mg%
FENFLURAMINE (Pondimin)	10.0 - 12.0 μg%	20.0 - 90.0 μg%	0.6 - 1.5 mg%
FENOPROFEN (Nalfon)	4.3 mg%	—	—
FLEXIN (Zoxazolamine)	0.3 - 1.3 mg%	—	—
FLUORIDE	0.05 mg%	—	0.2 mg%
FLUOTHANE (Halothane)	0.18 mg%	—	20.0 mg%
FLURAZEPAM (Dalmane)	0.05 - 0.15 mg%	0.25 mg%	—

Cont'd

DRUG & CHEMICAL BLOOD LEVEL DATA (Cont'd)

DRUG	THERAPEUTIC or NORMAL	TOXIC	LETHAL
FURADANTIN (Nitrofurantoin)	0.18 mg%	—	—
GANTRISIN (Sulfisoxazole)	9.0 - 10.0 mg%	—	—
GLUTETHIMIDE (Doriden)	0.02 - 0.08 mg%	1.0 - 8.0 mg%	3.0 - 10.0 mg%
GOLD (Sodium Aurothiomalate)	0.3 - 0.6 mg%	—	—
HALDOL (Haloperidol)	0.05 - 0.9 μg%	1.0 - 4.0 mg%	—
HALOPERIDOL (Haldol)	0.05 - 0.9 μg%	1.0 - 4.0 mg%	—
HALOTHANE (Fluothane)	0.18 mg%	—	20.0 mg%
HYDRALAZINE	0.05 mg%	—	—
HYDROGEN SULFIDE	—	—	0.092 mg%
HYDROMORPHONE (Dilaudid)	—	—	10.0 - 30.0 μg%
IBUPROFEN (Motrin)	0.5 - 4.2 mg%	8.0 - 50.0 μg%	—
IMIPRAMINE (Tofranil)	15.0 - 25.0 μg%	50.0 - 150.0 μg%	0.2 mg%
INDERAL (Propranolol)	2.5 - 20.0 μg%	—	0.8 - 1.2 mg%
IRON	65.0 - 175.0 μg%	0.6 mg%	2.0 - 5.0 mg%
ISOPROPANOL	—	340.0 mg%	—
KETAMINE	0.4 mg%	—	—
LEAD	0.0 - 30.0 μg%	130.0 μg%	110.0 - 350.0 μg%
LIBRIUM (Chlordiazepoxide)	0.1 - 0.3 mg%	0.55 mg%	2.0 mg%
LIDOCAINE	0.15 - 0.5 mg%	0.9 - 1.4 mg%	2.5 mg% & >
LINDANE	0.1 μg%	50.0 μg%	—
LITHIUM	0.42 - 0.83 mg% (0.6 - 1.2 mEq/L)	1.39 mg% (2.0 mEq/L)	3.47 mg% & > (5.0 mEq/L) & >
LOMOTIL (Diphenoxylate)	1.0 μg%	—	—
LORAZEPAM (Ativan)	2.0 - 5.0 μg%	—	—
LSD	—	0.1 - 0.4 μg%	—
MADRIBON (Sulfadimethoxine)	8.0 - 10.0 mg%	—	—
MAGNESIUM	1.5 - 2.5 mg%	—	5.0 mg%
MANGANESE	0.08 - 0.26 μg%	460.0 μg%	—
MARCAINE (Bupivacaine)	0.25 mg%	1.0 mg%	—
MDA (3,4-methylenedioxy-amphetamine)	—	—	0.4 - 1.0 mg%
MEDAZEPAM	30.0 μg%	—	—
MEFENAMIC ACID (Ponstel)	1.0 mg%	—	—

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