

**Current
Drug Handbook
1982-1984**

Current Drug Handbook 1982-1984

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PREFACE

This revision, as have past ones, presents specific information on approximately 1500 selected drugs in order to provide a handy source for quick reference. It supplies information supplemental to that in Part II of the textbook *The Drug, The Nurse, The Patient*. As a general rule, active principles or individual drugs are considered rather than the myriad of mixtures available, and attempts have been made to include only drugs in general use regardless of their recognition by official publication.

Material has been organized with categories of usage similar to that of the *United States Pharmacopeia*; thus, drugs with the same use will be found grouped together in the handbook. In addition, the most recent U.S.P. monograph changes have been added to the index and cross-referenced to the appropriate place within the text.

The format has been planned in tabular form for ease in grasping all the pertinent facts at one glance. The material is to be read across the page.

The first column gives the names of the drug—generic, major trade names, and Canadian names when these differ from those used in the United States. The Canadian names are placed in parenthesis with the letter "C" at the end. This column also gives the source of the drug, if this is not listed in the heading, the active principles (if any are therapeutically important), and the designation U.S.P. if applicable. It should be remembered that there are some drugs with an almost unlimited number of names. Obviously, it has not been possible to include every one. In all cases the official names have been given preference. We have identified main or generic names by underscoring them.

In the second column are given the dosage, method, and times of administration, if the drug is usually given at definite times. The dosages are listed in the metric system. If the apothecaries' dose is desired the reader may consult the list of approximate equivalents in the back of the book.

The third column gives the major uses of the drug and sometimes the minor ones.

The fourth column states the action and fate (absorption, distribution, excretion) of the drug in the body insofar as this is known.

The fifth column covers the toxicity, side effects, contraindications, interactions, and, when applicable, the treatment of these. The sixth and last column is titled "Nursing Implications and Remarks" and includes important information that is not applicable

under the other headings. This format has been used with only slight variations throughout, even though in some instances it has not been entirely satisfactory. The variations are self-explanatory. Since the tabular form has been used and brevity stressed, sentences are often incomplete. To conserve space and for clarity, interactions have sometimes been included in column 6 rather than, or in addition to, column 5. When they apply to an entire group, they have been placed across the page with general heading information.

The authors have drawn on a large number of sources for the information used, relying heavily upon such official publications as the *United States Pharmacopeia* and other sources such as *Drug Evaluations*, the *Modern Drug Encyclopedia*, the *American Hospital Formulary Service*, the *American Drug Index*, and, for the newest drugs, information provided by the pharmaceutical company preparing the medication.

Laws and regulations controlling the dispensing and administration of potentially addictive drugs and narcotics are undergoing intensive scrutiny as legislatures attempt to deal with drug abuse problems. On May 1, 1971, the federal "Comprehensive Drug Abuse Prevention and Control Act of 1970" went into effect in the United States. This act was known as the "Controlled Substance Act." As of October 1, 1973 the name of the control agency is "Drug Enforcement Agency" (DEA).

This act repeals the "Narcotic Acts" as well as the "Drug Abuse Control Amendments to the Federal Food, Drug and Cosmetic Act." The drugs that come under the jurisdiction of the act are divided into five schedules (I, II, III, IV, V). The greater the possibility of abuse and dependence the lower the classification number. Schedule I includes those drugs that have no accepted medical use in the United States and includes heroin, marijuana, etc. The remaining schedules have the former Class A, B, X narcotics, the amphetamines and amphetamine-like compounds, the barbiturates and hypnotic drugs.

The people working with these drugs should know in what schedule the various compounds are listed so that they can be handled as required by this act.

State laws are more stringent than federal laws in some cases. The student should become familiar with local regulations. Canadian students should refer to the books and pamphlets issued by the Department of National Health and Welfare such as *The Food and Drug Act and Regulations*, *Narcotic Control Act*, and *Controlled Drugs*. As with state laws, provincial laws may be more stringent than the dominion laws, in which case the student will need to know the local regulations. These laws are amended as circumstances indicate.

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ANTISEPTICS AND DISINFECTANTS

Drugs included in this group are those used to destroy or to inhibit the development of microorganisms in the environment of the patient, or on the body surfaces. Some insecticides are also listed. Systemic anti-infectives are discussed later. These substances are all poisonous to a greater or lesser degree.

Name, Source, Synonyms, Preparations	Dosage and Administration	Uses	Action and Fate	Side Effects and Contraindications	Nursing Implications and Remarks
HALOGENS Only two of the halogen elements—chlorine and iodine—are commonly used as antiseptics and disinfectants.					
CHLORINE. Gaseous element.		For utensils, skin, mucous membranes, and sometimes food and water. Most common means of making water potable. For excreta.	In insects, acts as contact and stomach poison. (In man, mainly central nervous system effects.) Other than chlorine gas, the chlorine-containing compounds act by the slow release of hypochlorous acid, which is bactericidal but also destructive to normal tissue.	Toxic in strong solutions, but poisoning rare in usual strengths. Irritating to skin; protect with oil or petrolatum.	The germicidal action of chlorine is decreased in the presence of organic matter or an alkaline pH.
Chlorinated lime (chloride of lime, bleaching powder).	5-20% solution. Environmental.	To render water potable. For wounds. Germicidal in action and dissolves clots.			After it is mixed with water, it should stand 1/2 hour before being drunk. Hygeol is twice the strength of Dakin's solution.
Halazone, U.S.P.	4-8 mg. to 1 liter. Environmental.	As above.	Same as Halazone.	Too strong to use on the skin undiluted.	Some household bleaches are a 5% solution of sodium hypochlorite.
Sodium hypochlorite diluted solution, (hypochlorite, modified Dakin's solution). (Hygeol [C]), Sodium hypochlorite solution Succinichlorimide.	5% solution. Environmental 12 mg. to 1 liter. Environmental.	Used to kill cancer cells in the operative field.	Thought to act by oxychlorination of the free cells. Contains 3-4% active chlorine.	Contraindicated when site of infection is not exposed to direct contact with solution.	
OXYCHLOROSENE. Synthetic. Derived from hypochlorous acid. Oxychlorosene (Clorpactin XCB).	0.5% solution. Topical, with contact time of at least 5 minutes. 0.4% solution. Topical. 0.1-0.2% solution in ophthalmology.	Used as an antiseptic, in urology and ophthalmology.			
Oxychlorosene sodium (Clorpactin WCS-90).					

ANTISEPTICS AND DISINFECTANTS (Continued)

Name, Source, Synonyms, Preparations	Dosage and Administration	Uses	Action and Fate	Side Effects and Contraindications	Nursing Implications and Remarks
IODINE. <i>Kelp</i>. Iodine solution, U.S.P. <u>Iodoform</u>	2% solution. Topical. Powder. Topical.	Antiseptic for skin and wounds. Used for infected wounds and on gauze packings. Have longer antiseptic action than most iodine solutions; do not sting. Solutions used for scrubbing, mouth washes and douches. Ointment used for burns.	These compounds are effective because of the presence of elemental iodine. Believed to act by their iodinating and oxidizing effects on microbial protoplasm.	Topical preparations are toxic if taken internally. Irritating in strong solutions or when skin is wet.	The complexes with povidone or poloxamer can be banded or taped following use.
Poloxamer-iodine (Prepodine). Povidone-iodine, U.S.P. (Betadine, Isodine) (Bridine, Provodine, PVP-I, [C]).	1% solution. Topical. 1% ointment, solution or gel. Topical, vaginal, surgical scrub, aerosols, foams and gauze.				
Strong tincture of iodine.	7% alcoholic solution. Topical.	For skin, do not use in deep wounds.			
<u>Thymol iodide</u> .	Powder. Topical.	For skin and wounds; contains iodine and thymol from thyme.			
<u>Tincture of iodine, U.S.P.</u>	2% alcoholic solution. Topical.	For skin.			
<u>Undecyllum chloride-iodine (Virac).</u>	0.2-3.2% solution. Topical.	Similar to povidone-iodine.			Tincture of iodine is irritating to wounds, probably because of 44-50% alcohol content.
HEAVY METALS					
MERCURY. <i>Mineral</i>.					
Acetomerocetol (Merbak). Ammoniated mercury ointment, U.S.P. (white precipitate). Merbromin. (Fluorochrome K) (Mercurochrome). (Mercurescin [C]).	0.1% tincture. Topical. 5% ointment. Topical. 3% ointment. Topical. 1-5% aqueous solution. Topical. 1-2% acetone-alcohol solution. Topical. 1:20,000-1:1000 aqueous solution. Environmental. 1:4000 solution. Environmental. 1:500 solution. Environmental.	For skin, mucous membranes, and utensils. For skin disorders. For skin disorders. For ophthalmic use. Used for skin or mucous membranes. Used for skin only. Occasionally used as skin wash. Do not use on metals. As above, does not corrode metals. As above, does not corrode metals.	Mercuric ion will precipitate plasma protein, but its antibacterial action probably results from its ability to inhibit sulphydryl enzymes.	Local irritation from mercury products is not uncommon; severe dermatitis may occur. Stop drug and treat symptoms.	
Mercury bichloride (Mercuric chloride, corrosive sublimate).	1:20,000-1:1000 aqueous solution. Environmental.				
<u>Mercury cyanide</u> .	1:4000 solution. Environmental.				
<u>Mercury oxycyanide</u> .	1:500 solution. Environmental.				
	1:5000 solution	Tonometer antiseptics.			

<u>Nitromersol, U.S.P. (Metaphen).</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Strong solutions are caustic. Normal saline is antidote. If used repeatedly, watch for symptoms of argyria (silver poisoning): pain in throat and abdomen, vomiting, purging and graying of lips. Stop drug and treat symptoms.
<u>Mercurial ointment, mild.</u> <u>Thimerosal, U.S.P. (Merthiolate)</u> <u>(Thiomersal [C]).</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown. When used for extensive burns, hypochloremia and hyponatremia may occur.
<u>Phenylmercuric acetate</u> <u>(Nylmerate).</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>Phenylmercuric nitrate</u> <u>(Merphenyl nitrate, Phe-Mer-Nite).</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>Yellow oxide of mercury ointment</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>SILVER. Mineral.</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>Toughened silver nitrate, U.S.P.</u> <u>(Lunar, caustic, molded silver nitrate).</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>Silver nitrate solution.</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.
<u>Silver picrate.</u>	1:1000 aqueous solution. Environmental. 1:2500-1:500 aqueous solution. Topical. 1:5000-1:200 tincture. Topical. 1% ointment. Topical. 1:1000 aqueous solution. Environmental. 1:1000 alcoholic tincture. Topical. 0.2% topical (vaginally). 0.02% gel. 1:1500 ointment or solution. Topical. 1:3000 ophthalmic ointment. 1% ointment. Topical.	For skin and mucous membranes. For skin. Mainly for parasites. Also used for mucous membranes. For skin. For skin. For eyes. For eye infections.	Stains skin brown.

ANTISEPTICS AND DISINFECTANTS (Continued)

Name, Source, Synonyms, Preparations	Dosage and Administration	Uses	Action and Fate	Side Effects and Contraindications	Nursing Implications and Remarks
COLLOIDAL SILVER. <i>Mineral and protein.</i> Silver protein, mild (Argyrol, Solargenum). Silver protein, strong (Protargol).	5-25% solution. Topical. 0.25-1% solution. Topical. 1:2000-1:1000 solution. Topical. 5% solution. Topical.	As above. For skin and mucous membranes. For skin and mucous membranes. For skin and mucous membranes.	As above.	As above.	Mild silver protein contains more silver than strong silver protein, but is less astringent because of difference in ionization of solution. Trade names listed and others are similar, to, but not always identical with, N.F. formula.
Oxidizing Agents <i>Synthetic.</i> Act by liberating nascent oxygen.					
Benzoyl peroxide, U.S.P. (Benoxyl, Persa-gel). Hydrogen peroxide, U.S.P.	5-10% topical ointment, gel. 2.5-3.5% solution. Topical.	Treatment of acne. Antiseptic for skin and mucous membranes. Especially valuable for anaerobic organisms.	The nascent oxygen liberated from these compounds is capable of oxidizing susceptible components in cellular protoplasm, thereby affording bactericidal effect.	Toxic reactions are rare. Never instill in closed body cavities or abscesses from which the gas has no free egress.	Deteriorates on standing.
Potassium permanganate, U.S.P.	1:5000 solution. Topical. 1:2000-1:1000 solution. Topical. 1:10,000-1:5000 solution. Topical.	For gastric lavage in certain cases of poisoning (alkaloid). For the skin; dyes skin brown. For mucous membranes.		Toxic if taken internally, causing gastrointestinal disturbances. Evacuants, demulcent drinks, treat symptoms.	Dyes linens.
Sodium perborate	2% saturated solution. 10-20% powder in dentifrices. Topical.	Antiseptic for mouth.		Toxic reactions are rare, but it can cause chronic glossitis from prolonged use.	Constituent of many dentifrices; should be used only on advice of doctor or dentist.
Zinc peroxide, medicinal, U.S.P.	5-25% ointment. 40% aqueous suspension, and as a dusting powder. Topical.	Antiseptic for skin.		Toxic reactions are rare.	Insoluble in water, but gradually decomposed by water to release oxygen.

PHENOL GROUP (carbolic acid)
Coal tar and crude petroleum.

Cresol (methylphenol).

Saponated solution of cresol,
(Cresolin, Cresol compound,
Cresylone, Hydrasol, Phenolor).

Liquefied phenol, U.S.P.

Phenol, U.S.P.

**PREPARATIONS MADE
SYNTHETICALLY FROM
PHENOL**

Arylphenolic compounds
(Amphyl, O-Syl, Staphene).

Metacresylacetate.

Betanaphthol.

Hexachlorophene, U.S.P. (G-11)
(Gamophen, phisoHex, SurgiCen,
Surofene) (Hexachlorophane,
Dermohex, HexSurg, Ibadern,
Promani, Tersaseptic [C]).

Pyrogallol.

Triacetylpyrogallol (Lenigallol).

Disinfectant in strong solutions. Antiseptic in weak solutions.

Largely replaced by saponified form.

For utensils, and for skin and mucous membranes.

Disinfectant in strong solutions.

As caustic.

As antiseptic and antipruritic. Soak for 1/2 hour or more.

1-5% solution. Environmental.

2-5% solution. Environmental.

0.25-5% solution. Topical.

85% solution. Topical.

0.5-1% solution. Topical.

2-5% solution. Environmental.

Varied. Topical, environmental. 0.5% strength is usual.

Varied. Topical. 0.5% strength is usual.

5-10% ointment. Topical.

0.5-3% soaps. Topical.

5-10% ointment.

6% powder or ointment. Topical.

Used for utensils, environmentally, and in weak solutions for skin disinfection.

An antiseptic and analgesic used for ear, nose and throat.

Antiseptic for the skin, especially in fungal infections.

Mainly for skin antiseptics, and also for surgical scrubs.

For skin disorders.

Keratolytic, keratoplastic and antifungal.

Effect of phenols thought to result from their ability to denature protein. Some substituted phenols tend to be more effective depending on the position and the substituent. Phenol is bacteriostatic in concentrations of 1:800 to 1:500; in concentrations of 1:400 to 1:50 it is bactericidal. It is not effective against spores.

Some skin irritation in strong solutions.

Warning—total body bathing of adults or children can result in absorption of toxic concentrations of hexachlorophene, especially in premature infants and those with dermatoses. Adverse reactions include dermatitis and photosensitivity. Toxic reactions rare in therapeutic strengths.

Caustic if too strong. Wash with alcohol.

Cresol, vegetable oil, and soap.
Cresol content 50%.
Phenol coefficient 3.

Hexachlorophene should be discontinued at once if signs of cerebral irritability occur.

ANTISEPTICS AND DISINFECTANTS (Continued)

Name, Source, Synonyms, Preparations	Dosage and Administration	Uses	Action and Fate	Side Effects and Contraindications	Nursing Implications and Remarks
RESORCINOL GROUP					
Resorcinol, U.S.P. (Resorcin).	1-10% solution. Topical.	As above.			
Resorcinol monoacetate, U.S.P. (Euresol).	5-20% ointment and lotion. Topical.	As above.			
QUATERNARY AMMONIUM COMPOUNDS					
(Detergents). <i>Synthetic</i> . Soap-like substances.		Used for skin and mucous membranes and for utensils. Especially useful for pre- and postoperative skin disinfection and obstetrical procedures.	The exact mode of action of these agents is not presently known, but they do reduce surface tension and are thought to denature lipoprotein complexes.	Toxic reactions rare.	Inactivated by soap. Rinse thoroughly before using after green soap has been used.
Benzalkonium chloride, U.S.P. (Fenasept, Germicel, Hyamine-350, Phenecol, Roccal, Zephiran Chloride) (Benzalchlor-50, Benzalide, Benzalkone, Drapolex, Ionex, Sabol (C)).	1:5000-1:500 aqueous. Environmental. 1:40,000-1:500 aqueous. Topical. 1:1000 tincture. Topical.	Utensils and skin must be completely rinsed after application.	Effective against gram-positive and gram-negative organisms, but some strains of gram negatives require a longer exposure time. These compounds are not tuberculocidal. Effect thought to be due to enzyme inactivation.	Serum and protein material decrease activity of benzalkonium chloride. The following substances are incompatible with benzalkonium: iodine, silver nitrate, fluorescein, nitrates, peroxide, KMnO_4 , aluminum ion, kaolin, pine oil, zinc oxide, yellow oxide of mercury and soap.	Used full or one-fourth strength as needed.
Benzethonium chloride, U.S.P. (Hyamine-1622, Phemerol Chloride, Phemithyn).	1:5000-1:1000 aqueous. Environmental or topical.	As above.			
Cetylpyridinium chloride, U.S.P. (Cepryn chloride) (Cepacol, Oracel (C)).	As above.	For skin; not reliable against spores.			
Hexetidine (Sterisol (C)).	0.1% gel. Topical.	Local antiseptic for bacteria, fungi, protozoa. Main use is in the treatment of vaginitis.			
Methylbenzethonium chloride (Diaprene Chloride) (Amosept (C)).	1:25,000 solution. Environmental. 0.1% ointment, lotion or cream. Topical.	Especially for infants' diapers. For skin antiseptics.			

BISDIGUANIDE ANTISEPTICS <i>Synthetic</i> Chlorhexidine gluconate. (Hibidens) (Hibitane [C]). (пексидин)	4% solution. Topical. For surgical scrub, skin wound cleanser and hand- washing by health care personnel.	It is antimicrobial, effective against gram-negative and gram-positive bacteria. Somewhat less active against some strains of <i>Serratia</i> and <i>Pseudomonas</i> than other gram-negative bacteria. Not active against <i>Aspergillus</i> . The anti- microbial effect persists for over 6 hours on gloved hands. It is not appreciably absorbed from the skin.	Generally not irritating.	May cause photosensitivity; protect treated areas from sunlight.
TAR GROUP COAL AND OTHER TARS Coal tar ointment	1% coal tar in zinc oxide paste. Topical. 20% diluted as required. Topical. 10% ammonium ichthy- osulfonate in petro- latum and wool fat. Topical. 15% cade oil in an oily base. Topical. 5% pine tar in yellow wax and petrolatum. Topical.	For skin antiseptics. Kerato- plastic and antipruritic. Antiseptic, astringent and antipruritic. For skin. For skin. For mucous membranes and skin antiseptics.	Toxic reactions rare. Toxic reactions rare. Toxic reactions rare. Toxic reactions rare. Harmful to body cells in strong solution but not in therapeutic strengths.	May cause photosensitivity; protect treated areas from sunlight.
VARIOUS DYES <i>Cude petroleum or synthetic.</i> Acriflavine.	1:8000-1:1000 solu- tion. Topical.	Bacteriostatic and bactericidal.	Watch for staining, as with any dye.	