

# CURRENT DRUG HANDBOOK 1978-1980

FALCONER PATTERSON GUSTAFSON SHERIDAN

W. B. SAUNDERS COMPANY

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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 publications.

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.

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 parentheses 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. or N.F. if these apply. 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 "Remarks" and includes any important information that is not applicable under the other headings. This form 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*, the *National Formulary*, and other sources such as *Drug Evaluations*, the *Modern Drug Encyclopedia*, the *American Drug Index*, and, for the newest drugs, information provided by the pharmaceutical company preparing the medication.

In response to suggestions received from several sources we have included in this edition a tabulation of "Normal Laboratory Values of Clinical Importance," which appears immediately following the main body of the handbook.

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 include 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 the local regulations in her area. 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 which are 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                                                                                    | Remarks                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <i>HALOGENS.</i> Only two of the halogen elements—chlorine and iodine—are commonly used as antiseptics and disinfectants.                            |                                                                  |                                                                                                                |                                                                                                                                                                          |                                                                                                                       |                                                                                                     |
| <i>CHLORINE.</i> <i>Gaseous element.</i>                                                                                                             |                                                                  | For utensils, skin, mucous membranes, and sometimes food and water. Most common means of making water potable. | In insects, acts as contact and stomach poison. (In man, mainly central nervous system effects.)                                                                         | 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. |
| <u>Chlorinated lime</u> (chloride of lime, bleaching powder).                                                                                        | 5-20% solution. Environmental.                                   | • For excreta.                                                                                                 | Other than chlorine gas, the chlorine-containing compounds act by the slow release of hypochlorous acid which is bactericidal, but is also destructive to normal tissue. |                                                                                                                       |                                                                                                     |
| <u>Halazone.</u>                                                                                                                                     | 4-8 mg. to 1 liter. Environmental.                               | To render water potable.                                                                                       |                                                                                                                                                                          |                                                                                                                       | After it is mixed with water it should stand 1/2 hour before being drunk.                           |
| <u>Sodium hypochlorite diluted solution</u> , N.F. (hychlorite, modified Dakin's solution). (Hygeol [C]). <u>Sodium hypochlorite solution</u> , N.F. | 0.5% solution. Topical.<br><br>5% solution. Environmental        | For wounds. Germicidal in action and dissolves clots.                                                          |                                                                                                                                                                          | Too strong to use on the skin undiluted.                                                                              | Hygeol is twice the strength of Dakin's solution.                                                   |
| <u>Succinchlorimide.</u>                                                                                                                             | 12 mg. to 1 liter. Environmental.                                | As above.                                                                                                      | Same as Halazone.                                                                                                                                                        |                                                                                                                       | Some household bleaches are a 5% solution of sodium hypochlorite.                                   |
| <i>OXYCHLOROSENE.</i> <i>Synthetic.</i> Derived from hypochlorous acid. <u>Oxychlorosene</u> (Clorpactin XCB).                                       | 0.5% solution. Topical, with contact time of at least 5 minutes. | Used to kill cancer cells in the operative field.                                                              | Thought to act by oxychlorination of the free cells.                                                                                                                     | None unless ingested.                                                                                                 |                                                                                                     |
| <u>Oxychlorosene sodium</u> (Clorpactin WCS-90).                                                                                                     | 0.1-0.4% solution. Topical.                                      | Used as an antiseptic.                                                                                         |                                                                                                                                                                          |                                                                                                                       |                                                                                                     |

| Name, Source, Synonyms, Preparations                                                                                                                                           | Dosage and Administration                                                                                                                               | Uses                                                                                                                                                                        | Action and Fate                                                                                                                                               | Side Effects and Contraindications                                                                                 | Remarks                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>IODINE.</b> <i>Kelp.</i><br><u>Iodine solution</u> , N.F.<br><u>Iodoform</u> , N.F.                                                                                         | 2% solution. Topical.<br>Powder. Topical.                                                                                                               | Antiseptic for skin and wounds.<br>Used for infected wounds and on gauze packings.                                                                                          | 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 bandaged or taped following use.        |
| <u>Poloxamer-iodine</u> (Prepodyne).<br><u>Povidone-iodine</u> N.F. (Betadine, Isodine) (Bridine, Provodine, PVP-I. [C]).                                                      | 1% solution. Topical.<br>1% ointment, solution or gel. Topical, vaginal, surgical scrub, aerosols and gauze.                                            | Have longer antiseptic action than most iodine solutions; do not sting. Solutions used for scrubbing, mouth washes and douches. Ointment used for burns.                    |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <u>Strong tincture of iodine.</u>                                                                                                                                              | 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> , U.S.P.                                                                                                                                             | 2% alcoholic solution. Topical.                                                                                                                         | For skin.                                                                                                                                                                   |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <u>Undecylium chloride-iodine</u> (Virac).                                                                                                                                     | 0.2-3.2% solution. Topical.                                                                                                                             | Similar to povidone-iodine.                                                                                                                                                 |                                                                                                                                                               |                                                                                                                    | Tincture of iodine is irritating to wounds, probably because of 44-50% alcohol content. |
| <b>HEAVY METALS</b>                                                                                                                                                            |                                                                                                                                                         |                                                                                                                                                                             |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <b>MERCURY.</b> <i>Mineral.</i>                                                                                                                                                |                                                                                                                                                         |                                                                                                                                                                             |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <u>Acetomerocetol</u> (Merbak).<br><u>Ammoniated mercury ointment</u> , U.S.P. (white precipitate).<br><u>Merbromin</u> . (Flurochrome K) (Mercurochrome). (Mercurescein [C]). | 0.1% tincture. Topical.<br>5% ointment. Topical.<br>3% ointment. Topical.<br>1-5% aqueous solution. Topical.<br>1-2% acetone-alcohol solution. Topical. | For skin, mucous membranes, and utensils.<br>For skin disorders.<br>For skin disorders.<br>For ophthalmic use.<br>Used for skin or mucous membranes.<br>Used for skin only. | Mercuric ion will precipitate plasma protein, but its antibacterial action probably results from its ability to inhibit sulfhydryl enzymes.                   | Local irritation from mercury products is not uncommon; severe dermatitis may occur. Stop drug and treat symptoms. |                                                                                         |
| <u>Mercury bichloride</u> (Mercuric chloride, corrosive sublimate).                                                                                                            | 1:20,000-1:1000 aqueous solution. Environmental.                                                                                                        | Occasionally used as skin wash. Do not use on metals.                                                                                                                       |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <u>Mercury cyanide.</u>                                                                                                                                                        | 1:4000 solution. Environmental.                                                                                                                         | As above; does not corrode metals.                                                                                                                                          |                                                                                                                                                               |                                                                                                                    |                                                                                         |
| <u>Mercury oxycyanide.</u>                                                                                                                                                     | 1:500 solution. Environmental.                                                                                                                          | As above; does not corrode metals.                                                                                                                                          |                                                                                                                                                               |                                                                                                                    |                                                                                         |

|                                                                                                  |                                                                                                                       |                                                                                                                                                                        |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <u>Nitromersol</u> , N.F. (Metaphen).                                                            | 1:1000 aqueous solution. Environmental.<br>1:2500-1:500 aqueous solution. Topical.<br>1:5000-1:200 tincture. Topical. | For skin and mucous membranes.<br>For skin.                                                                                                                            |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <u>Mercurial ointment</u> , mild.<br><u>Thimerosal</u> , N.F. (Merthiolate)<br>(Thiomersal [C]). | 1% ointment. Topical.<br>1:1000 aqueous solution. Environmental.<br>1:1000 alcoholic tincture. Topical.               | Mainly for parasites.<br>Also used for mucous membranes.<br>For skin.                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <u>Phenylmercuric acetate</u><br>(Nylmerate).                                                    | 0.2% topical (vaginally).<br>0.02% gel.                                                                               |                                                                                                                                                                        |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <u>Phenylmercuric nitrate</u> , N.F.<br>(Merphenyl nitrate, Phe-Mer-Nite).                       | 1:1500 ointment or solution. Topical.<br>1:3000 ophthalmic ointment.                                                  | For skin.<br>For eyes.                                                                                                                                                 |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <u>Yellow oxide of mercury ointment</u> , N.F.                                                   | 1% ointment. Topical.                                                                                                 | For eye infections.                                                                                                                                                    |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <b>SILVER. Mineral.</b>                                                                          |                                                                                                                       |                                                                                                                                                                        |                                                                                                                                                                  |                                                                                                                                                                                                                                 |                                                                                                    |
| <u>Toughened silver nitrate</u> , U.S.P.<br>(lunar, caustic, molded silver nitrate).             | Pencils or applicators. Topical.                                                                                      | For skin and mucous membranes, especially in infections due to the gonococcus.<br>As styptic and caustic.                                                              | Silver ion is a protein precipitant, but the concentrations which exhibit bacteriostatic action indicate that silver ions have an effect on some enzyme systems. | 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>Silver nitrate solution.</u>                                                                  | 0.5-2% solution. Topical.<br>1:10,000-1:2000 solution.<br>1% solution. Eyes.                                          | For skin and mucous membranes. Used in a 0.5% solution for treatment of burns.<br>Instilled into conjunctival sac of newborn infants to prevent ophthalmia neonatorum. |                                                                                                                                                                  |                                                                                                                                                                                                                                 | Stains skin brown.<br><br>When used for extensive burns, hypochloremia and hyponatremia may occur. |
| <u>Silver picrate.</u>                                                                           | 1-2% solution. Topical.                                                                                               | As above.                                                                                                                                                              |                                                                                                                                                                  | Watch also for picric acid poisoning (kidney or liver).                                                                                                                                                                         | Picric acid stains skin yellow.                                                                    |

| Name, Source, Synonyms, Preparations                                                                                                                                                                                                                                                                   | Dosage and Administration                                                                                                                                                                                                                                                                                                    | Uses                                                                                                                                                                                                                                                                                                     | Action and Fate                                                                                                                                                 | Side Effects and Contraindications                                                                                                                                                                                                                                                                                                                             | Remarks                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COLLOIDAL SILVER.</b> <i>Mineral and protein.</i><br><u>Silver protein mild, N.F.</u> (Argyrol, Solargentum).<br><u>Silver protein, strong, (Protargol).</u><br><br><u>Silver iodide (Neo Silvol).</u>                                                                                              | 5-25% solution. Topical.<br>0.25-1% solution. Topical.<br>1:2000-1:1000 solution. Topical.<br>5% solution. Topical.                                                                                                                                                                                                          | As above.<br><br>For skin and mucous membranes.<br>For skin and mucous membranes.<br><br>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. |
| <b>OXIDIZING AGENTS.</b> <i>Synthetic.</i><br>Act by liberating nascent oxygen.<br><u>Benzoyl peroxide, U.S.P. (Benoxyl).</u><br><br><u>Hydrogen peroxide, U.S.P.</u><br><br><u>Potassium permanganate, U.S.P.</u><br><br><u>Sodium perborate, N.F.</u><br><br><u>Zinc peroxide, medicinal, U.S.P.</u> | 5-10% topical ointment, gel.<br>2.5-3.5% solution. Topical.<br><br>1:5000 solution. Topical.<br>1:2000-1:1000 solution. Topical.<br>1:10,000-1:5000 solution. Topical.<br><br>2% saturated solution. 10-20% powder in dentifrices. Topical.<br><br>5-25% ointment. 40% aqueous suspension, and as a dusting powder. Topical. | Treatment of acne.<br><br>Antiseptic for skin and mucous membranes. Especially valuable for anaerobic organisms.<br><br>For gastric lavage in certain cases of poisoning (alkaloid).<br>For the skin; dyes skin brown.<br>For mucous membranes.<br><br>Antiseptic for mouth.<br><br>Antiseptic for skin. | 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.<br><br>Toxic if taken internally, causing gastrointestinal disturbances. Evacuants, demulcent drinks, treat symptoms.<br><br>Toxic reactions are rare, but it can cause chronic glossitis from prolonged use.<br>Toxic reactions are rare. | Deteriorates on standing.<br><br>Dyes linens.<br><br>Constituent of many dentifrices; should be used only on advice of doctor or dentist.<br>Insoluble in water, but gradually decomposed by water to release oxygen.                   |

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

Cresol, N.F. (methylphenol).

Saponated solution of cresol,  
N.F. (Creolin, 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, Ibaderm,  
Promani, Tersaseptic [C]).

Pyrogallol.

Triacetylpyrogallol (Lenigallol).

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.

Disinfectant in strong solu-  
tions. 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.

Used for utensils, environ-  
mentally, 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 de-  
pending on the position  
and the substituent. Phenol  
is bacteriostatic in con-  
centrations of 1:800 to  
1:500; in concentrations  
of 1:400 to 1:50 it is  
bactericidal. It is not  
effective against spores.

Active primarily against  
gram-positive organisms,  
not gram-negative.

Caustic if too strong. Wash  
with alcohol.

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 photo-  
sensitivity.  
Toxic reactions rare in  
therapeutic strengths.

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                                                                                                                                                                                                                                                           | Remarks                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>RESORCINOL GROUP</b>                                                                                                                                                           |                                                                                                       |                                                                                                                                                 |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |
| <u>Resorcinol</u> , U.S.P. (Resorcin).                                                                                                                                            | 1-10% solution. Topical.                                                                              | As above.                                                                                                                                       |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |
| <u>Resorcinol monoacetate</u> , N.F. (Euresol).                                                                                                                                   | 5-20% ointment and lotion. Topical.                                                                   | As above.                                                                                                                                       |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |
| <b>QUATERNARY AMMONIUM COMPOUNDS</b>                                                                                                                                              |                                                                                                       |                                                                                                                                                 |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |
| (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 lipo-protein complexes.                                                                  | Toxic reactions rare.                                                                                                                                                                                                                                                                        | Inactivated by soap. Rinse thoroughly before using after green soap has been used. |
| <u>Benzalkonium chloride</u> , U.S.P. (Benasept, Germicin, Hyamine-3500, Phencen, Roccal, Zephiran Chloride) (Benzalchlor-50, Benzalide, Benzalkone, Drapolex, Ionex, Sabol [C]). | 1:5000-1:500 aqueous. Environmental.<br>1:40,000-1:500 aqueous. Topical.<br>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, $\text{KMnO}_4$ , aluminum ion, kaolin, pine oil, zinc oxide, yellow oxide of mercury and soap. |                                                                                    |
| <u>Benzethonium chloride</u> , N.F. (Hyamine-1622, Phemerol Chloride, Phemithyn).                                                                                                 | 1:5000-1:1000 aqueous. Environmental or topical.                                                      | As above.                                                                                                                                       |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              | Used full or one-fourth strength as needed.                                        |
| <u>Cetylpyridinium chloride</u> , N.F. (Ceepryn chloride) (Cepacol, Oracain [C]).                                                                                                 | As above.                                                                                             | For skin; not reliable against spores.                                                                                                          |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |
| <u>Hexetidine</u> (Sterisol [C]).                                                                                                                                                 | 0.1% gel. Topical.                                                                                    | Local antiseptic for bacteria, fungi, protozoa. Main use is in the treatment of vaginitis.                                                      |                                                                                                                                                                                                                          | Toxic reactions are rare in topical application.                                                                                                                                                                                                                                             |                                                                                    |
| <u>Methylbenzethonium chloride</u> , N.F. (Diaparene Chloride) (Amosept [C]).                                                                                                     | 1:25,000 solution. Environmental.<br>0.1% ointment, lotion or cream. Topical.                         | Especially for infants' diapers.<br>For skin antiseptics.                                                                                       |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                              |                                                                                    |