**GARGLES**

Gargles are aqueous solutions used for the prevention or treatment of throat infections. Usually they are concentrated solutions and should be diluted with warm water before use. In using the gargles they are brought into intimate contact with the mucous membrane of the throat and are allowed to remain there for a few moments after which they are thrown out of the mouth.

Gargles should be dispensed in white fluted bottles.

e.g. aspirin gargle., Phenol Gargle

**Method of Preparation**

Phenol Gargle

Formula:

Phenol 16%w/v

Glycerin 75%w/v

Water q.s. to produce 100ml

The Phenol is dissolved in glycerin and the required quantity of water is added to the mixture to make up the volume. The Formulation is diluted 5 times with potable water prior to use.

**MOUTH WASHES**

A mouthwash is an aqueous solution similar to a gargle but it is intended to wash the mouth. Mouthwashes are used for their deodorant action, refreshing action or antiseptic effect. They may also contain alcohol, glycerin, synthetic sweeteners, surfactants, flavoring and coloring agents.

Mouthwashes should be dispensed in white fluted bottles.

Eg. Zinc Sulphate and Zinc Chloride Mouthwash and Compound Sodium Chloride Mouthwash.

**Method of Preparation**

Formula:

Potassium Bicarbonate                            20 g

Sodium Borate                                        20 g

Thymol                                                    0.5 g

Eucalyptol                                               1.0 ml

Alcohol                                                   50 ml

Glycerin                                                100 ml

Purified Water, q.s.                         \_\_\_\_\_\_\_\_\_\_\_

      To make                                       1000 ml

Dissolve the potassium bicarbonate and sodium borate in 100ml purified water, add the glycerin when effervescence has ceased, add the mixture to 500ml purified water. Dissolve the other ingredients in the alcohol, and add the solution of salts to the alcoholic solution with agitation. Then add sufficient quantity of purified water to make the product measure 1000ml. Allow the mixture to stand, with occasional shaking during 24 hours. Filter using talc, if necessary to produce a clear solution.

**THROAT PAINTS**

Paints or Throat Paints are simple solutions of substances in a viscous solvent such as glycerin and liquid paraffin. A viscous solvent retains the medicament *in situ* for appreciable length of time after the preparation is applied. Throat paints are usually glycerin based as it possesses agreeable taste in addition to viscosity.

Egs. Iodine Throat Paint and Iodine Potassium Throat Paint, Mandl’s Paint (Compound Iodine Paint).

**Method of Preparation**

Mandls Paint

Formula:

Potassium iodide 25g

Iodine 12.5g

Alcohol 90%v/v 40ml

Water 25ml

Peppermint oil 4ml

Glycerol up to 1000ml

Preparation:

(i) Potassium iodide is dissolved in water.

(ii) Iodine is added in the concentrated potassium iodide solution.

(iii) Peppermint oil is dissolved in alcohol 90%v/v and the alcoholic solution is added to the iodine solution.

(iv) Volume is made up with glycerin.

**EAR DROPS**

Ear drops are the solutions of drugs that are installed in to the ear with a droper. These are generally used for cleaning the ear, softeneing the wax and for treating the mild infection.

**Ear drops** are a form of medicine used to treat or prevent ear infections, especially infections of the outer ear and ear canal (otitis externa). Ear drops are solutions / suspensions of medicines in solvents like water, glycerol, diluted alcohol, or propylene glycol. These solutions can be instilled into the ear. For these ear drops to be effective sufficient contact time should be provided.

**Method of Preparation**

Sodium Bicarbonate Ear Drops B.P.

Formula:

Sodium bicarbonate 5g

Glycerol 30ml

Purified water (freshly boiled and cooled) q.s. to produce100 ml

Preparation:

Dissolve the sodium bicarbonate in about 60 ml of purified water; add the glycerol and sufficient Purified Water to produce 100 ml and mix.

**LOTIONS**

Lotions are liquid preparations for external application **without friction**.

They are either dabbed on the skin or applied on a suitable dressing and covered with water proof material to reduce evaporation.

e.g. Zinc sulfate and salicylic acid for ulcer

Salicylic acid lotion for dandruff

Salicylic acid and mercuric chloride lotion for follicular infection

N.B. Copper and Zinc sulfate have astringent action.

Salicylic acid has keratolytic action.

**Method** **of Preparation:**

Calamine Lotion

Formula:

Calamine                                             150g

Zinc Oxide                                           50g

Glycerin                                               50ml

Bentonite                                30gm

Sodium Citrate 5gm

Liquified Phenol 5ml

Rose Water q.s. (To make 1000ml)

Preparation:

Dissolve the Sodium citrate in a small volume of rose water. Mix the powders (Calamine, Zinc Oxide and Bentonite) intimately with the above solution by triturating. Required quantity of liquefied phenol and glycerin are added to the above mixture and the the final volume is made up by using rose water.