

**MANUAL  
FOR VILLAGE  
HEALTH  
WORKERS**

This manual is designed to help the health worker do the best job possible. It will enable him to help many sick people when other medical care is not available. Of even more importance, it will enable him to teach his people better ways of healthful living and thereby prevent much disease and suffering.

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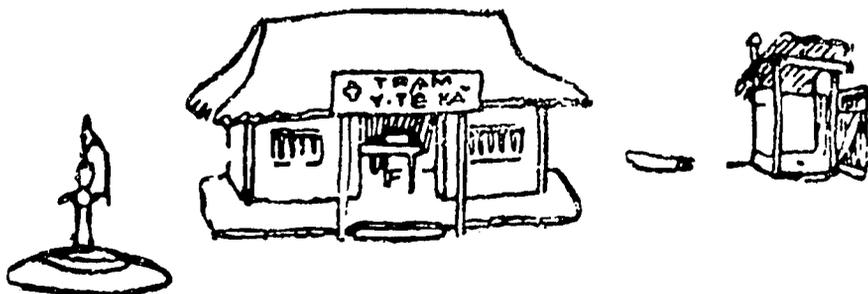
## THE HEALTH WORKER

- Must be chosen because he is respected by his fellows; he can read the manual well; and he can be trusted with a great responsibility.
- May use the medicines and supplies in the health workers medical kit, if he has been taught to use them to treat common sicknesses according to the directions in this manual.
- Must know the manual very well by reading it many times.
- Must follow the exact instructions in the manual.
- Must refer patients to other medical help (district health worker - nurse - doctor - hospital) for serious cases, prolonged sickness, or cases not clearly described in the manual. There are many diseases not described in this manual which need a doctor's care.
- Must never perform surgical operations, or try to reduce fractures.
- Must always teach the patient and his family the cause and prevention of each disease for which he treats them. This will help promote better health and happier lives even more effectively than his medicines will.
- Must prepare the people for clinics and immunizations and help the district health worker with them.
- Shall have sole responsibility for the health workers medical kit.
- Must keep a record of treatments, drugs and supplies used, and secure more drugs and supplies before they are gone.
- Must burn or bury all refuse such as used bandages and sticks.
- Must boil all water and keep it covered.
- Must wash his hands with soap and water after treating each patient.



THE HEALTH STATION

- should be conveniently located near the center of the village.
- should be large enough for people to wait, to treat patients in privacy, and to store medicines and other supplies.
- should be kept clean.
- should have a garbage pit, a pit privy, and a sanitary well.
- should be equipped with a desk, a table, a cabinet, shelves, several chairs, a bench, and a stove for boiling water.
- should always have a clean basin for washing patient's hands, or wound, and a clean cup for drinking boiled water when giving medicine.



### Medical Kit

The village medical kit must be kept in a shady, dry place above the floor. It should be kept locked when not in use.

All medicines and supplies must be kept clean and properly labeled. Poisons such as Iodine, Benzyl Benzoate, DDT and Lindane powders should be labeled, "Poison" and kept on a separate high shelf.

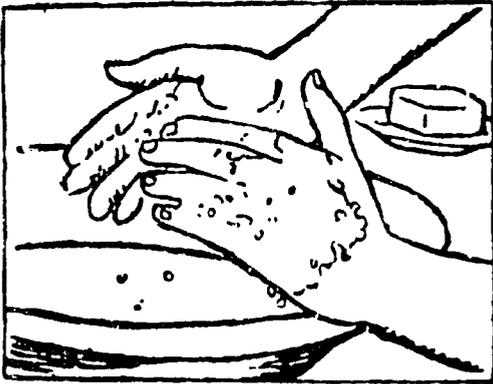
In order to keep an adequate supply on hand, the Village Health Worker should order medicines as recommended in the Record Book.



GOOD RULES FOR YOU AND YOUR PATIENTS

PERSONAL RULES

1. Always keep the body clean by frequent soap and water baths.



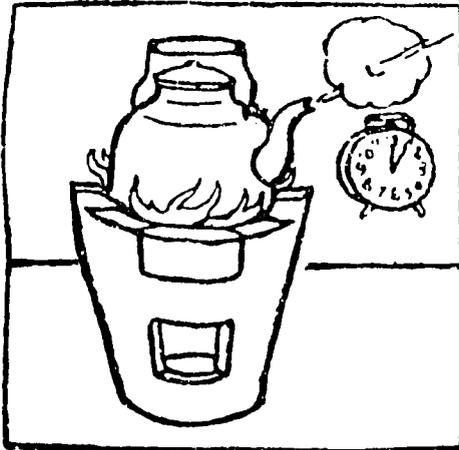
2. Always wash the hands with soap and water immediately after emptying bowels or bladder and always before eating or handling food.
3. Always wear clean clothes.
4. Always avoid the use of unclean or common eating, drinking or toilet articles such as dishes, cups, bowls, chopsticks, knives, spoons, glasses, handkerchiefs, towels, combs brushes, pipes and toothbrushes.
5. Always keep dirty hands and unclean articles away from the mouth, nose, eyes, ears, genitalia, and wounds.
6. Always avoid exposure to spray from people's noses or mouths when they cough or sneeze. Always cover your own nose and mouth with a handkerchief or clean cloth when you cough or sneeze.
7. Always avoid mosquitoes, flies and other insects. Sleep under a mosquito net. Cover all food and burn or bury all table scraps to keep them away from flies.

SICKNESS RULES

1. Always keep sick people away from others as much as possible.
2. Always wash the hands with soap and water immediately after caring for sick people.
3. Always boil in water for 5 minutes all utensils such as dishes, cups, bowls, spoons used by sick people before they are used by anyone else.
4. Always burn or bury all dressings, bandages and discharges from nose, throat, sores, bowels or bladder.
5. Always have sick people cough, spit or blow into a cloth, leaf or can which can be disposed of by burning or burying.

### FOOD RULES

1. Always use food as fresh and clean as possible. Only clean water should be used to wash food.
2. Always store food and drinks protected from dust, dirt and insects.



3. Always boil water to be used for drinking for 5 minutes and keep it in covered bottles.
4. Always cook food just before eating whenever possible and always reheat previously cooked food just before eating it.
5. Drop vegetables that are to be eaten raw in boiling water for 1 minute. Soaking in permanganate solution for 20 minutes

will kill many, but not all, bacteria. Amoeba are especially resistant.

6. Always peel fruit to be eaten raw without touching the part to be eaten.
7. Always wash hands with soap and water before preparing food or drinks.
8. Always keep sick people or people with sores from preparing or handling food.
9. Always keep eating area clean and free of food scraps. Garbage should be buried or burned.
10. Always wash cooking and eating utensils with soap and hot water as soon after use as possible.

### WASTE RULES

1. Always dispose of human excreta in a sanitary privy or by burying.
2. Never use human excreta as fertilizer unless it has been properly composted for six months.

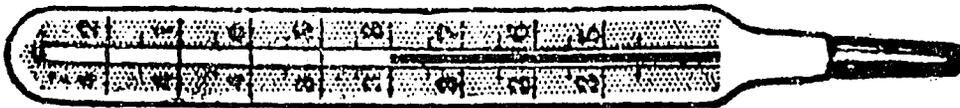


### GIVING MEDICINE

1. Dosage are listed under each medicine.
2. Pills should be crushed for babies and small children and given in a spoonful of boiled water. A little sugar may be added to the boiled water or condensed milk may be used. Place the medicine on the back of the baby's tongue.
3. Always give medicine at the dispensary, if possible. If medicine is taken home, be sure the patient understands exactly how and when to take it.
4. If medicines or supplies have touched a patient's sore do not use them for another person or replace them in the kit.

### Taking the Temperature

Fever is one of indications of illness. A thermometer is used to find out whether a person has a fever.

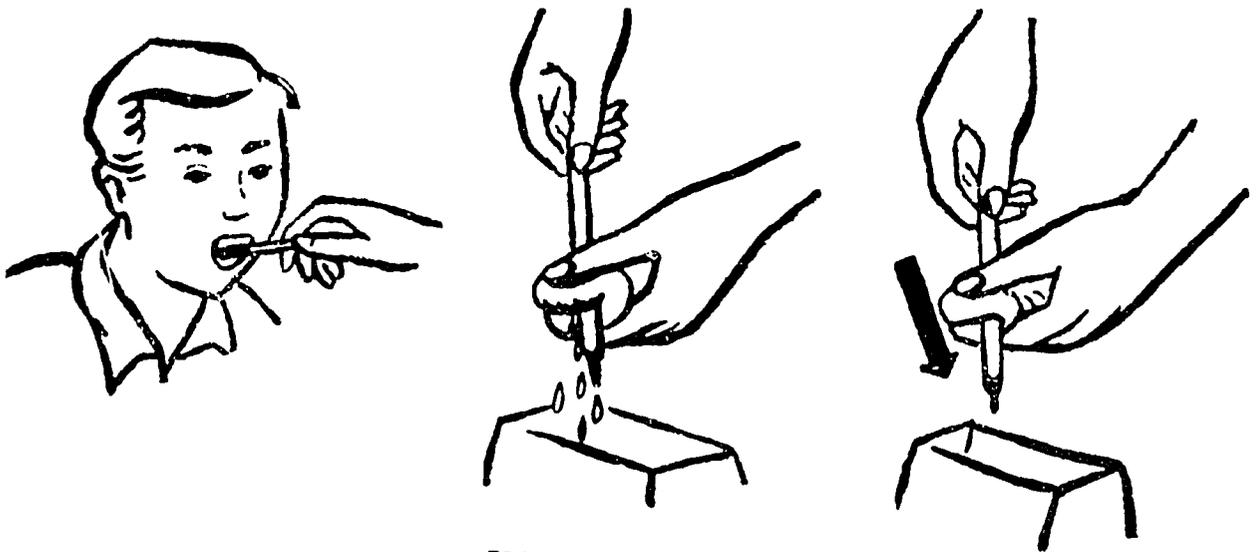


We usually take the temperature under the tongue 3 minutes. If the patient cannot hold the thermometer under his tongue we take his temperature by placing the thermometer under his arm for 3 minutes.

Normal temperature under the tongue is 37°C  
Fever temperature under the tongue is 38°C or over  
Normal temperature under the arm is 36°,5C  
Fever temperature under the arm is 37°C or over

### Equipment

1 or more thermometers  
5 small pieces of cotton  
A waste container  
Bar soap  
Boiled water



PROCEDURE

1. Check thermometer - if mercury shows above  $36^{\circ}\text{C}$  - shake down until mercury reaches  $35^{\circ}$  or lower.
2. Wipe thermometer with cotton ball dipped in cooled boiled water. Save cotton sponge.
3. Place tip of thermometer (the end of thermometer where mercury can be seen) under persons tongue for 3 minutes.
4. Remove thermometer from mouth and, with cotton ball used previously to wipe off thermometer, repeat procedure. Read thermometer.
5. With second cotton ball moistened with soap and cooled boiled water clean thermometer. Start from the top of thermometer and with spiral motion continue to end of thermometer. Discard cotton ball.
6. With third cotton ball repeat above procedure - taking care that thermometer has been properly washed with soap and water.
7. With fourth cotton ball, moistened with cooled boiled water, rinse thermometer.
8. With fifth cotton ball dry thermometer and replace in container.
9. Write temperature reading on patients record.

MEDICINES IN FIRST AID KIT

ASPIRIN TABLETS - 5 GRAINS (324 mgs)

Dose:

- 1/4 tablet newborn to one year
- 1/2 tablet 1 and 2 years
- 1 tablet 3 through 11 years
- 2 tablets 12 and over.

Directions:

1. Aspirin should be taken with 1 glass of boiled water.
2. Aspirin should be continued every 4 hours if there is either pain or fever. Give patient enough for eight doses to take at home (2, 4, 8, or 16 tablets depending on the age).

Use:

Aspirin will relieve pain and fever in many diseases, such as injuries, burns, and infections of the skin, ear, throat and lungs.

AUREOMYCIN OPHTHALMIC OINTMENT - 1/8 OUNCE TUBES

Dose:

2cm as it comes from the tube 1 drop.

Place in each eye sac 3 times daily until eyes seem all better, which may be for as long as two months. Following apparent cure continue to apply once daily for three days.

Directions:

1. Tip head back or have patient lie down.
2. Pull lower lid down.
3. Keep the eyelids open and have patient move eyes to distribute the ointment to the whole of the eye.
4. Do not touch the eye with the ointment tube.
5. Teach patient or someone in family how to apply and give him a tube to take home.

Use:

Aureomycin ophthalmic ointment will kill many germs causing eye infections.

BENZYL BENZOATE SAPONATED - U.S.P.

Directions:

1. Dilute the benzyl benzoate in the medicine kit by adding 3 parts of water to 1 part of benzyl benzoate before using it.
2. Give the patient a small glassful to take home.
3. Instruct someone in the family regarding its use.
4. Apply daily for 3 days.

Precautions:

1. Do not drink the benzyl benzoate
2. Rub on all the body except the head and face.
3. If a new rash develops during treatment, do not apply any more benzyl benzoate.

Use:

Benzyl benzoate will kill the mites that cause scabies (itch).

BROWN MIXTURE COMPOUND TABLETS

Dose:

- 1/4 tablet every two hours for newborn to 2 years  
1/2 tablet every two hours for children 2 through 11  
1 tablet every two hours for those 12 and over.  
Give patient 4, 8 or 16 tablets to take at home.

Directions:

1. Swallow tablet with one glass of boiled water.

Use:

Brown mixture compound tablets will help stop coughing caused by colds and lung infections.

BAR SOAP:

Directions:

1. Wash hands thoroughly with Bar Soap before and after caring for a patient.
2. Give the patient who has lice or scabies 1 bar of Bar Soap to take home with him.
3. To cleanse dog bites, dirty or infected wounds or soak off crusts:
  - a) Dissolve a small amount of Bar Soap in boiled water.
  - b) Wash the area gently with a piece of cotton moistened in the solution.
  - c) Rinse the area gently with a piece of cotton moistened in boiled water.

Use:

1. Bar Soap will help to kill germs on the body.
2. Bar Soap will help to destroy lice and nits in the hair.
3. Bar soap will help to wash crusts off the skin.
4. Bar soap will help to cleanse a dog bite or a dirty or infected wound and prevent serious infection.

IODINE, 2% AQUEOUS SOLUTION

Dose : Apply to wounds or infected areas in a thin film

Directions: 1. Wash wound with soap and boiled water

2. Rinse with a clean piece of cotton dipped in cooled boiled water

3. Apply Iodine to wound

4. Leave open to the air

Precautions:

Do not cover or bandage an area where iodine has been applied. If air is excluded from an area to which iodine has been applied a blister will form. A thin piece of gauze may be put lightly over the wound to keep out dirt or flies.

Use : Iodine, 2% will help to kill germs and prevent serious infection.

X

SULFA OINTMENT 5%

Dose:

Apply a thin layer on dressing gauze and put the gauze on the wound with the sulfa side towards the wound.

Directions:

If rash develops after using sulfa ointment, treatment must be stopped immediately.

Use:

Sulfa ointment will kill organisms associated with skin diseases and germs in small wounds.

CHLOROQUIN DIPHOSPHATE TABLETS - 0.25 grams

Dose:

1. Before confirmed diagnosis of malaria by blood smear:

Newborn to 1yr., 1/2 tablet at once

1 to 2 years, 1 tablet at once

2 through 5 years, 1 tablet at once and 1 tablet in 6 hours

6 through 12 years, 2 tablets at once and 1 tablet in 6 hours

13 years and over, 3 tablets at once and 1 tablet in 6 hours.

2. When malaria is confirmed through a positive blood smear:

<u>Age</u>	<u>Initial</u>	<u>6 hours later</u>	<u>Next day</u>	<u>Next day</u>
Newborn to 1 year	1/2 pill			
1 through 2	1 pill			
3 " 5	1 pill	1	1	1
6 " 12	2 pills	1	1	1
13 and over	3 pills	2	2	2

Directions:

1. Check each new bottle of pills. They may come from another manufacturer who use a different name or size. Other names are "Aralen", "Resochin", and "Nivaquin".
2. It is important to give a large initial dose.
3. These pills may cause symptoms of headache, visual disturbances, nausea, and ear disturbances. These symptoms will pass. The dosage should not be decreased because of the above symptoms.

Use:

Choroquin tablets kill the malaria parasites (chills and fever).

MULTIVITAMIN TABLETS

Dose : One tablet a day for all ages

Direction: Give the patient 7 pills to take home

Precautions: If severe diarrhea or vomiting occurs after taking these tablets, they should be discontinued.

Use : These tablets contain all the known required vitamins

DIARRHEA TABLETS (Bismuth Subcarbonate 0.3 grams)  
(Morphine Sulfate 0.5 mgms.)

Dose:

Newborn to 2 years, 1/2 tablet every 2 hours

2 through 11, 1 tablet every 2 hours

12 and over, 2 tablets every 2 hours

Give the patient 3, 6 or 12 tablets to take at home depending on the age.

Directions:

Take diarrhea tablets every two hours until diarrhea has stopped.

Use:

Diarrhea tablets will help stop diarrhea.

DUSTING POWDER 10% or Lindane 1%

1. For sprinkling on hair, body and mats

Use:

- a) To sprinkle lightly on hair, body and mats
- b) To give patient a can to take home

2. For soaking clothes and sheets.

Boil all clothes and sheets or soak in DDT solution

Use:

Mix a cup of DDT powder with 12 liters of water:

- a) Wash clothes and sheets
- b) Mix DDT solution carefully
- c) Soak 10 minutes in solution
- d) Wring and dry

This way of disinfecting is effective several weeks, even if clothes have been washed several times..

3. Precautions:

Do not swallow or breathe in this powder

4. Use:

DDT or Lindane will kill lice

PETROLATUM or VASELINE

Dose:

A thin film spread on gauze

Use:

Will keep dressing from sticking to burns and wounds.

PIPERAZINE TARTRATE TABLETS - 250 mgm

Dose:

Piperazine Tartrate tablets are given for seven days, no medicine is given for seven days, then they are given for seven more days.

First Week (7 days)

Children under 1 year old - 1 tablet each morning  
" from 1 to 5 years old - 1 tablet each morning &  
1 tablet each evening  
" from 6 to 12 years old take 2 tablets in the  
morning and 2 tablets in the evening.  
Persons from 13 years up take 4 tablets in the morning &  
4 tablets in the evening.

Second Week (7 days)

Do not take Piperazine Tartrate tablets

Third Week (7 days)

Give Piperazine Tartrate tablets in the same way as in the first week.

Directions:

1. A patient can eat his regular meals while taking the tablets.
2. No cathartic is necessary after taking the tablets to make the bowels move and for the worms to come out with the stool.

Use:

Piperazine Tartrate will poison the worms growing in the bowel so that they can be passed out in the bowel movements.

SULFA TABLETS - 0.5 grams (7.7 grains)

Sulfa tablets will usually be sulfathiazole  
Other sulfa tablets (sulfadiazine, sulfamethazine, triple sulfa)  
may be substituted in the same dosage  
Sulfaquanidine (succinylfathiazole) and sulfasuxidine are not a  
substitute for the other sulfa tablets.

Dose:

Children - Newborn to 2 years of age

1 tablet at once

1/2 tablet every 6 hours

(give parent 4 tablets to give at home)

2 years through 5 years of age

2 tablets at once

1 tablet every 6 hours

(give parent 8 tablets to give at home)

Pills should be crushed for children and

given with boiled water.

6 to 12 years

3 tablets at once

1 1/2 tablet every 6 hours

(give patient 14 tablets to take at home)

Adults - 4 tablets at once

2 tablets every six hours

(give patients 16 tablets to take at home)

Directions:

1. Sulfa tablets must not be given unless the temperature is 39°C or above when they are started. They must be continued as directed until all have been taken even if temperature becomes less and the patient feels better.
2. Sulfa must be taken with one glass of boiled water
3. Sulfa must be stopped if rash or itching develops during treatment.
4. Sulfa patients must return to health worker after 2 days, to determine further treatment.
5. Sulfa dosage must not exceed that recommended.

AFTER TWO DAYS

Improved - If the patient is improved give additional tablets as follows:

Newborn to 2 years

1/2 tablet every six hours  
(give four tablets to take at home)

Children 2 years and over and adults

1 tablet every six hours  
(give 8 tablets to take at home)

Not Improved - If the patient is not improved after 2 days the patient must see a doctor or go to a district dispensary

Use:

Sulfa will kill many germs found in infections of the skin, ears, throat, and lungs.

Salt Tablets - Sodium Chloride, 1. 12 grs., (17.3 gr.)

Use : 1. As a gargle for sore throats

Dose - 1 tablet dissolved in  $\frac{1}{2}$  glass warm, boiled water.

Directions - Salt solution should be as warm as the patient can use without burning the throat.

2. As a soak for infected parts of the body

Dose - 1 tablet dissolved in one liter of warm boiled water or 2 tablets dissolved in 2 liters of warm boiled water.

Precautions - Do not use salt solution as a soak where there are breaks in the skin. Salt solution is very painful to exposed flesh.

3. To make the patient who has swallowed poison vomit,

Dose - 6 tablets dissolved in  $\frac{1}{2}$  glass of water.

Common Treatments

Cold Wet Dressings

Equipment:

1. 2 pieces of clean cloth
2. Basin of cold boiled water

Directions:

1. Make 2 cloth pads not more than 1/2 centimeter thick and large enough to cover the injured area.
2. Dip the pads into the cold water and wring out well.
3. Place the pack over the injured area.
4. Change the pack whenever it becomes warm.

Use :

1. Cold wet pack will help to stop bleeding under the skin and relieve pain.

Cool Wet Packs

Equipment:

1. A basin of cool boiled water
2. Clean cloth folded to make a pack 3 centimeters thick

Directions:

1. Dip the packs in the water
2. Place the dripping pack on the affected area
3. Leave the pack on for 2 hours
4. Repeat every 6 hours (morning, noon and bedtime)
5. Continue for 3 days.

Precautions

Do not wring the water out of the packs

Use:

Will help to cure skin rashes that are oozing or covered with blisters.

## Warm Soaks

### Equipment

1. A large pail or basin
2. Sufficient warm boiled water to cover the affected part.
  - A. Where there are no breaks in the skin use salt solution as directed on page 21.
  - B. Where there are breaks in the skin use boiled water. Salt solution is very painful to the exposed flesh.

### Directions

1. Soak the infected part (hand, foot or leg) in the warm boiled water.
2. Soak the infected part of the body for 15 minutes.
3. Repeat the soak every 4 hours as long as there is infection.

### Precautions

1. Do not have the solution or boiled water hot enough to burn the patient.
2. Be sure that solution or boiled water completely covers the infected part of the body.

### Use

Warm soaks will help to cure infections.

## Warm Wet Packs

### Equipment:

1. A basin of very warm boiled water
2. A large piece of clean cloth folded to make a pack at least 3 centimeters thick and large enough so that the pack will cover the affected area completely.

### Directions

1. Wring the water out of the pack well
2. Apply to the affected part for 15 minutes
3. Repeat every 2 hours.

### Precautions

1. Do not burn the patients

### Use

For infected areas where a soak cannot be used.

## HOW DISEASE IS SPREAD

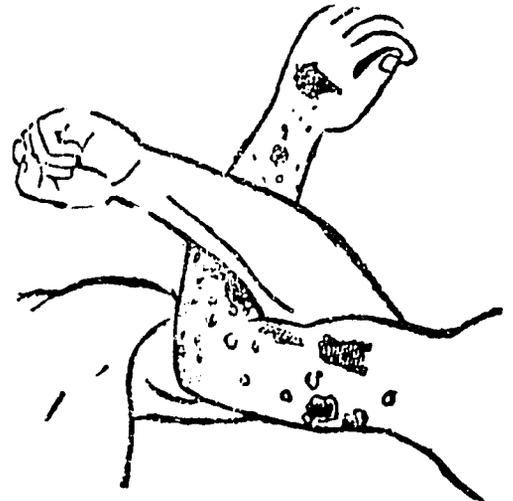
Most of the sickness found in Viet-Nam is caused by germs and therefore can be prevented.

Germs are so small they can be seen only with a strong microscope. However, germs are living creatures just like people, dogs, insects and plants. As all living creatures, germs can only grow from other germs just as dogs can only grow from other dogs. For this reason germs causing sickness do not come from just anywhere but only from germs from sick people or sometimes sick animals. Germs need food, water and a suitable home just like all living things. Heating them hot enough as in boiling water for 5 minutes or cooking food kills them.

Germs get from one person to another in 5 ways:

### 1. Direct contact

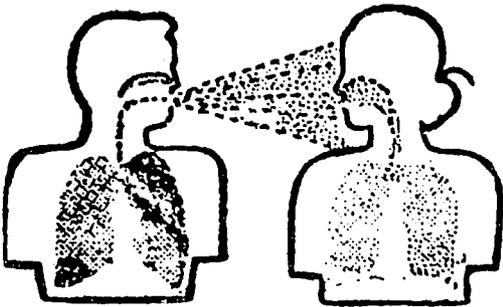
If one touches a sore where germs are growing the germs may get on to him and cause a new sore.



### 2. Indirect contact

If one touches an object that a sick person uses such as a cloth used to wipe sore eyes it may contain germs. If this cloth with germs on it is touched to well eyes they can become sick.



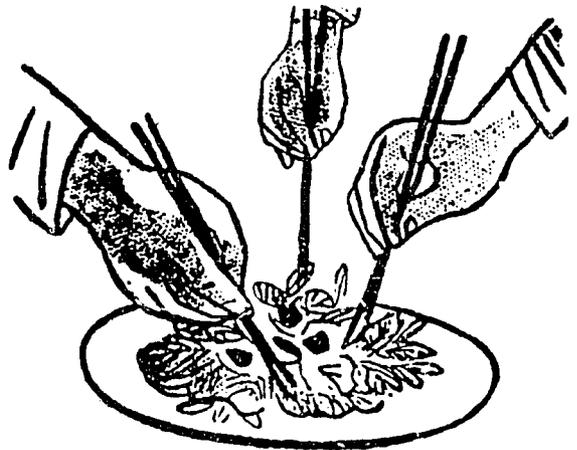


### 3. Inhalation

If a person sick with a lung infection coughs there may be germs in the droplets he sprays in the air. If another person breathes in these droplets he may get sick too from the germs in these droplets.

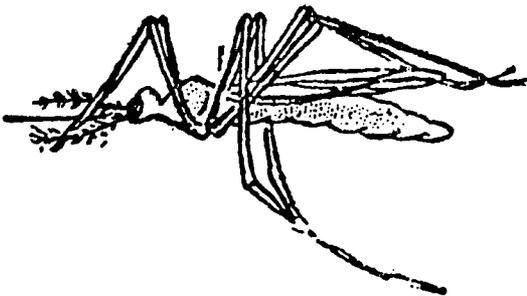
### 4. Food and Drink

If germs get into food and drink and are swallowed they can cause sickness inside the body. Diarrhea is usually caused by germs getting from one person's stools to another's food or drink by means of dirt, dust, insects, hands or water. If a person leaves his stools in a field where vegetables are growing the vegetables will have the germs on them.



### 5. Insects

If an insect such as a mosquito bites a person with sickness in his blood such as malaria the germs can get into the insect. When that insect bites another person he can inject the germs into his blood and make him sick.



If a fly lands on a sore or on a pile of garbage or manure, then walks on someone's food, the person can get sick from the germs the fly has on his feet.



The health rules tell how to keep germs from spreading from a sick person to a healthy person where they can cause disease. If everyone is taught the health rules and always follows them much sickness will be prevented.

SECTION I

INJURIES AND FIRST AID

Bruises

Sprains

Fractures

Wounds

Infected Wounds

Burns

Infected Burns

Snake Bites

Dog Bites

Poisoning

Unconsciousness

BRUISES

Description:

1. Area of tenderness and swelling following a blow or squeeze, due to blood collecting under the skin.
2. Often bluish discoloration either at once or in several hours.

Cause:

A blow or squeeze.

General Treatment:

1. Rest - until pain and swelling are gone.
2. Elevation of the bruised area.
3. Cold packs as soon as possible after injury for about 6 hours (ice or cold wet cloth). This is to help stop bleeding under the skin.
4. Hot packs - as hot as the patient can stand it - 24 hours after the injury (hot wet cloth for 15 minutes every 2 hours). Never apply heat until 24 hours after the injury. This is to absorb the old blood under the skin.

Medicine:

Aspirin - as indicated on page 12, if there is pain.

Prevention:

Care at work and play to prevent accidents.

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## SPRAINS

### Description

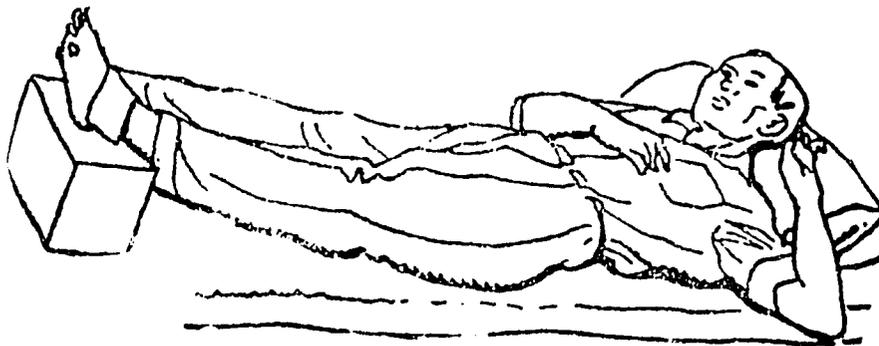
1. Pain or swelling about a joint after any excessive force to the joint. (See fractures)

### Cause

2. The ligaments of the joint are stretched or torn.

### General Treatment

1. Rest - until pain and swelling are gone.
2. Elevation - of the injured joint.
3. Cold packs - (ice or cold wet cloths) as soon as possible during the first 6 hours after the injury.



### Medicine

Aspirin - as indicated on page 12, if there is pain.

### Prevention

Care at work and play to prevent accidents.

## FRACTURES (Broken Bones)

### Description

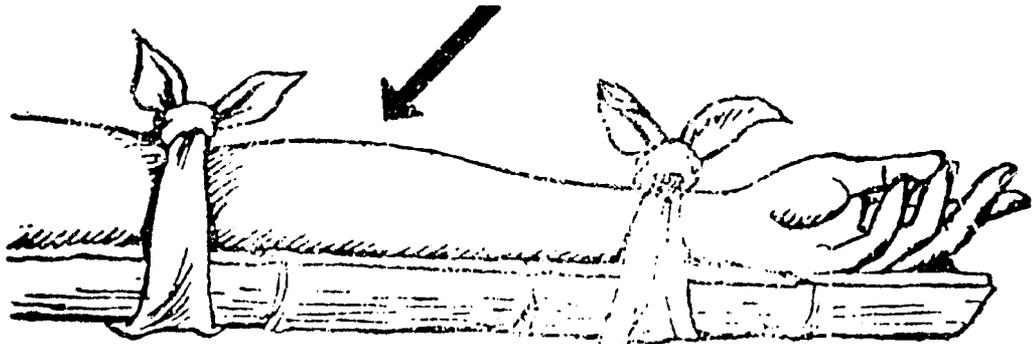
1. Pain is constant but becomes much worse when broken bone is used or pressed hard.
2. Pain is made worse at the point of fracture by pressing or moving ends of bones at a distance from the fracture.
3. Swelling and deformity are common.
4. There may be a breaking sound when the fracture occurs.
5. One may feel or hear a grating of broken bones when the broken part is moved.

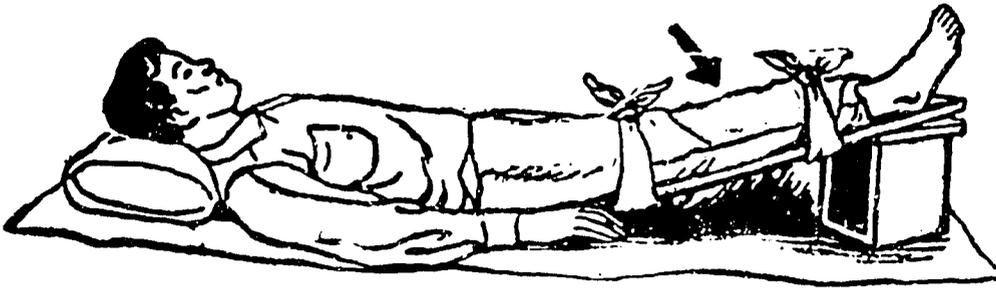
### Cause

Either a direct or indirect force applied to the bone.

### General Treatment

1. If the parts of the bone are out of place do not try to replace them. If the parts of the bone are moved the broken ends may cut through skin.
2. Keep the broken bone from moving by making a splint. Use a straight, firm stick long enough to extend in each direction beyond the ends of the bone. Tie the splint firmly to the limb on each side of the break.





3. Two sticks or boards can be used, one on each side of the broken limb.
4. The board should be well padded before placing against the injured part. This may be done with cotton or clean rags.
5. If the broken bone goes through the skin:
  - A. Do not wash or try to replace.
  - B. Cover wound with clean sterile gauze and bandage.
6. All broken bones must be cared for by a doctor.

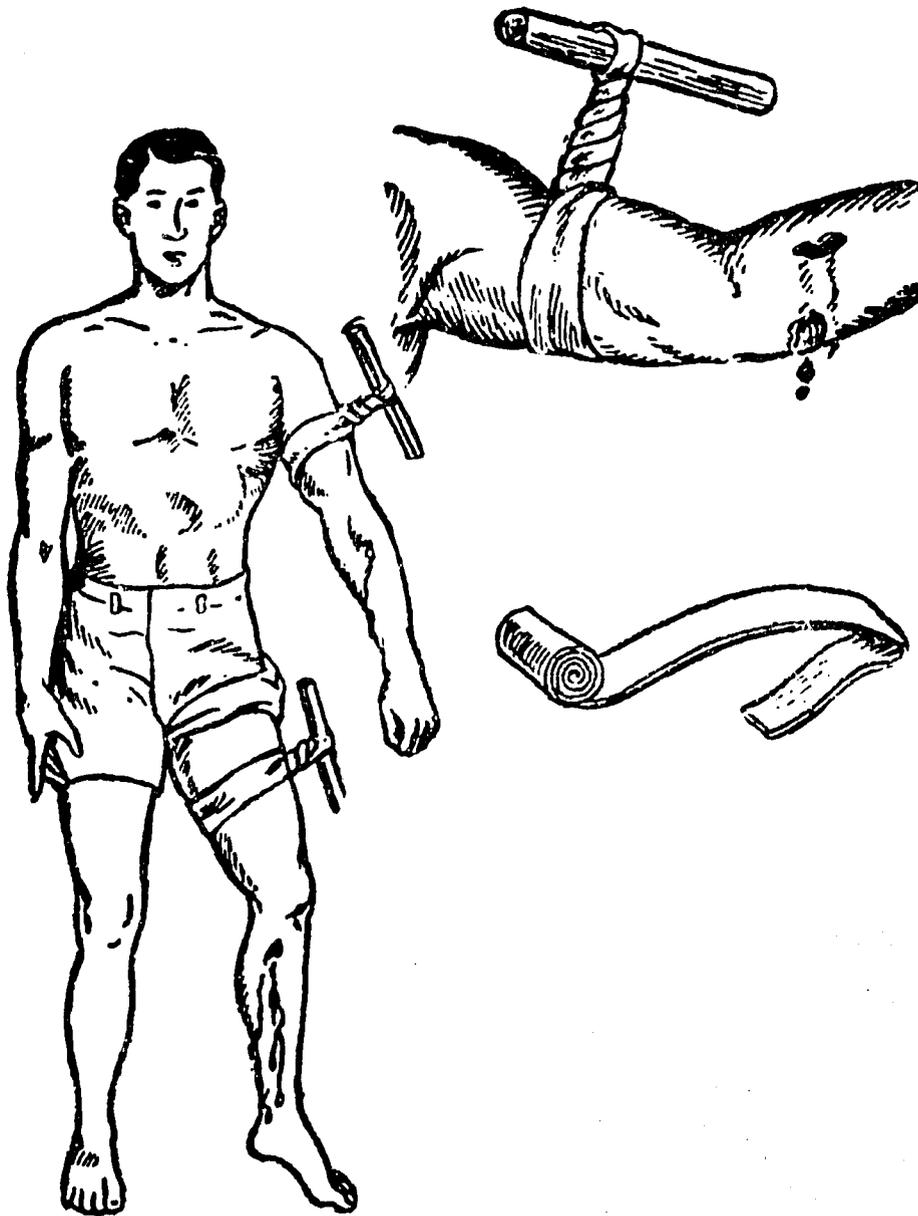
#### Medicine

- A. Give Aspirin as indicated on page 12.
- B. If the patients temperature is 39° or over give sulfa tablets as indicated on page 20.

#### Prevention

Care at work and play to prevent accidents.

Tourniquet to stop bleeding



## WOUNDS

### Description

1. Any break in the skin. May include a break in the deeper tissues as muscles and bones.
2. Wounds may be large or small, clean or dirty and may bleed a little or a lot.

### Cause

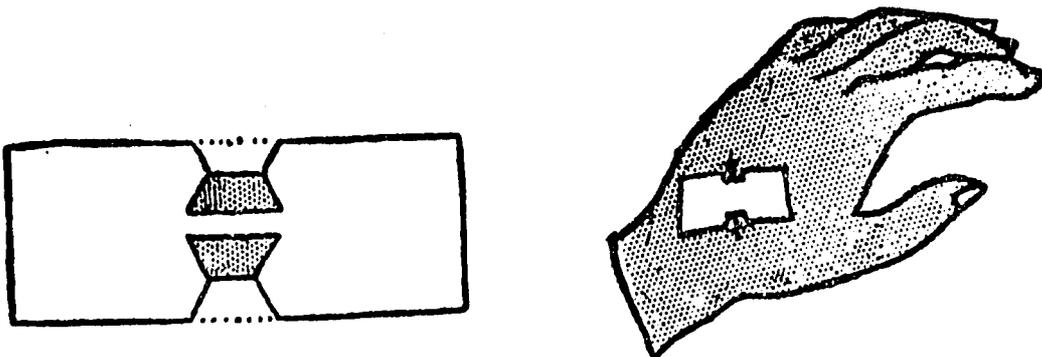
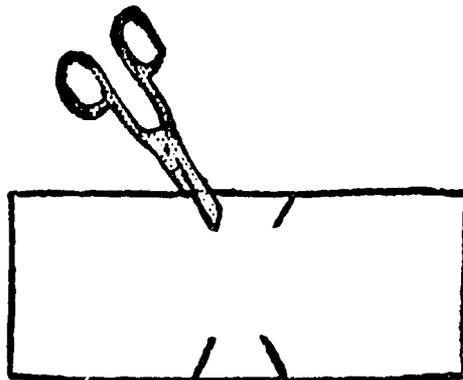
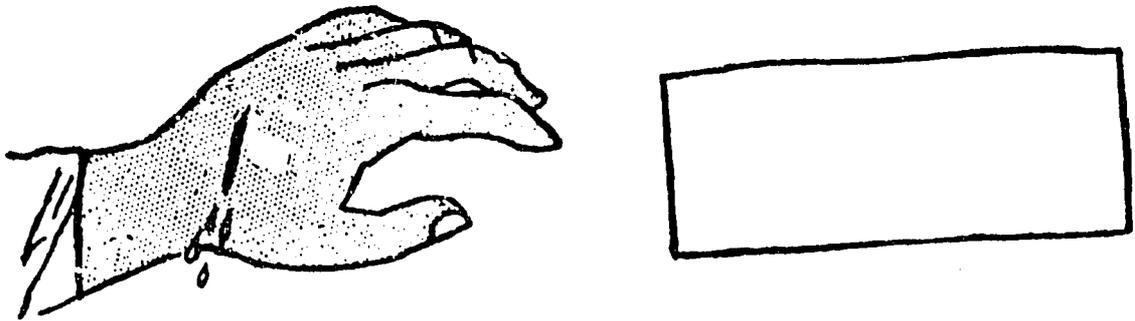
Any kind of blow that breaks the skin.

### General Treatment

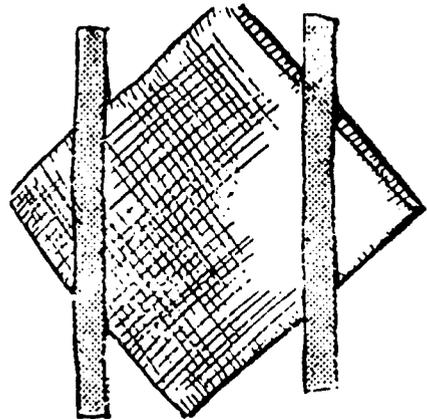
1. Bleeding must be stopped
  - A. Slight bleeding can usually be stopped by rest and elevation of the wounded part plus a little pressure over the wound. Cover the wound with a gauze pad and press with fingers or a bandage.
  - B. Severe bleeding must be stopped at once before anything else is done. If firm, direct pressure does not stop the bleeding apply a tourniquet between the wound and the heart, about 5 cms. from the wound. The tourniquet should be tight enough to stop the bleeding but not tight enough to bruise the flesh.

The tourniquet must be loosened every 15 minutes until bleeding starts again. However it must be reapplied at once if bleeding starts in squirts. If bleeding stops - tourniquet may be removed providing constant watch of the wound if possible.
  - C. Never cover a tourniquet as it might be forgotten.
  - D. Everyone with a tourniquet needs a doctor's care as soon as possible.
2. Make sure the wound is clean.
  - A. If it is clean wash around the wound with soap and boiled water but try to keep the soap out of the wound itself.
  - B. If it is dirty, wash out the wound with soap and boiled water and pick the dirt out of the wound with sterile forceps or sticks.
  - C. Rinse the wound using a fresh sponge which has been dipped in boiled water.
3. Sterilize the area around the wound with iodine as directed on page 15.

4. Close the edges of the wound that separate with a "butterfly dressing". Closed wounds heal faster with less scar. Cut a piece of adhesive tape twice as wide as the wound and long enough to hold firmly. The area around the wound must be thoroughly dry to hold the adhesive tape.



5. Leave the wound uncovered or cover with a light piece of gauze. Fasten the gauze with a strip of adhesive across two corners of the gauze.
  - a. Leave the dressing on for 1 week if wound heals well.
  - b. Change the dressing if it gets wet or dirt gets inside it, if the wound smells badly, pus discharges or if there is much swelling or redness around the wound.
6. Rest and elevate large wounds and they will heal better.
7. Wounds that bleed badly, cannot be cleaned, involving deep tissues or can't be closed need a doctor after treatment by the health worker.



#### Medicine

Aspirin if there is pain as indicated on page 12.

#### Prevention

Care at work and play to prevent accidents.

### INFECTED WOUNDS

An infected wound is one that does not heal well, smells badly, is swollen or red, and may discharge pus.

#### General Treatment:

1. Clean the wound gently with soap and boiled water as directed on page 34.
2. Soak the wound for 15 minutes in warm boiled water as directed on page 23.
3. Place 1 or more gauze squares over the wound.
4. Bandage not too tightly.
5. Repeat cleaning, soaking and bandaging whenever bandage becomes soaked with pus or smells badly (Three or four times in one day, if necessary).

#### Medicine

- A. If temperature is less than 39°C.  
Give Aspirin for pain as directed on page 12.
- B. If temperature is 39°C or above  
Give Sulfa tablets as directed on page 20 and Aspirin as directed on page 12.
- C. If temperature remains high after 3 days take the patient to the doctor or the District Dispensary.

#### Prevention

Proper care of wounds as described in this Manual.

## BURNS

### Description

1. Pain - even with little burns
2. Slight burns are red
3. Worse burns blister
4. Severe burns look "cooked" (gray or black) and involve skin and deep tissues.

### Cause

Exposure to any excess heat as fire, hot liquids (oil and water), hot objects, electricity, steam, sun or exposure to certain chemicals.

### General Treatment

1. Gently remove clothing (by cutting if necessary) and remove loose dirt and ashes only to the extent it can be done easily.
  - A. Do not wash
  - B. Do not break blisters
  - C. Do not use household grease on burns
  - D. Do not cover directly with lint - cotton or flannel.
2. If burn is on the face cover with a thick coating of boric acid ointment or petrolatum. Do not bandage. If burn is on some other part of the body, cover burn with gauze upon which has been spread a light coat of ointment.
3. Place a thick padding of cotton over the gauze and bandage firmly.
4. If burned area is large or burn is severe (skin "cooked") a doctor is needed. Keep patient warm and quiet and give fluids freely (tea or boiled water) until patient is seen by the doctor.



5. Dressing should be left on 1 week unless burn gets infected.

### Medicine

Give Aspirin as indicated on page 12, if there is pain.

### Prevention

1. Keep children away from fire or hot pans.
2. Never let children play with matches.

## INFECTED BURNS

### Description

1. Redness - swelling - heat - tenderness
2. Pus often discharges
3. Fever may be present
4. Infected burns almost always develop a bad odor.

### Cause

Germis growing in the burn

### General Treatment

1. If an infected burn develops a bad odor or the bandage is soaked with pus, remove the dressing even if it has not been on 1 week. Remove dressing gently by pouring warm boiled water under the dressing as it is lifted away.
2. Clean the burn gently with the soap and boiled water as directed on page 14.
3. Soak the burn for 15 minutes in warm boiled water as directed on page 23.
4. Place 1 or more gauze squares over the wound.
5. Bandage again, not too tightly.
6. Repeat cleaning, soaking and bandaging whenever bandage becomes soaked with pus or smells badly, (three or four times in one day if necessary).

### Medicine

- A. If temperature is less than 39°C  
Give Aspirin as indicated on page 12.
- B. If temperature is 39°C or above  
Give Sulfa tableb as directed on page 20 and Aspirin page 12.  
If temperature remains high after 2 days.  
Take the patient to the doctor or District Dispensary.

### Prevention

Proper care of burns as described in this manual.

## SNAKE BITES

### Description

1. Marks of the snake's fangs may be seen.

### Cause

Being bitten by a snake.

### General Treatment

1. All snake bites must be treated as if made by a poisonous snake unless snake is identified.
2. Place a tourniquet at once between the bite and the heart, so that the poison cannot flow along the veins to the heart.
3. With a sharp knife or razor blade make crossed cuts 1cm long at each fang mark and slightly deeper than the cut of the fang.



4. Encourage bleeding from these cuts for several hours so that the poison will flow-out with the blood.
5. Use 2 suction cups alternately or use mouth suction while the suction cup is being prepared, so that no time will be lost. If mouth suction is used, spit out the blood and poison. Any poison swallowed will not harm you. However, do not use mouth suction if there are open sores in the mouth as the venom would then be absorbed.
6. Loosen tourniquet every 25 minutes for a few seconds until wound bleeds a little.
7. All snake bites need a doctor's care. He may wish to give anti-venom.

### Medicine

Give Aspirin as directed on page 12.

### Prevention

1. Avoid snakes.
2. Wear trousers and heavy shoes in an area where you might expect to find snakes.

## DOG BITES

### Description

Broken skin or deeper wound caused by the bite of a dog.

### Cause

Bite of dog

### General Treatment

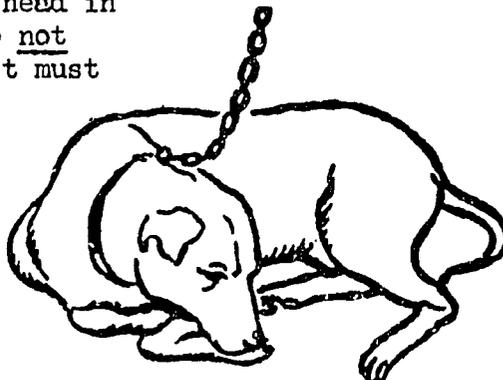
1. Clean the wound and surrounding skin with soap and boiled water
2. Apply Iodine 2% to surrounding skin and wound.
3. Cover lightly with sterile gauze
4. Rabies may result from the bite of a rabid dog.
  - A. If the bite is on the head, face or neck send the patient immediately to the provincial hospital or the Pasteur Institute in Saigon, Nha Trang or Dalat.
  - B. If the bite is on some other part of the body:
    - a) Keep the dog alive but tied up or caged for 10 days. If the dog lives for 10 days he does not have rabies.
    - b) If the dog becomes ill the patient and the dog must go to the provincial hospital or the Pasteur Institute in Saigon, Dalat or Nha Trang at once.
    - c) If the dog dies send the head to the Pasteur Institute for examination. Pack the head in ice if it is available. Do not injure the dog's head, as it must be kept for examination.

### Medicine

As for any other wound

### Prevention

Keep dogs tied, caged or muzzled if sick or exposed to other rabid dogs. Dogs may be given injections each year which will prevent rabies. Information on this may be secured through the Pasteur Institutes.



## POISONING

### Description

Frequent nausea and vomiting, abdominal pain, deep sleep, weakness, convulsions, collapse or other symptoms depending on the type of poison taken.

### Cause

Swallowing any poison such as poisonous plants, mushrooms, fish or other food; spoiled food containing poison; and certain chemicals as gasoline or cleaning agents; or even too large a dose of medicine.

### General Treatment

1. If poison came from a container with a label, look for instructions on it and follow them.
2. If it is a corrosive poison, such as strong acids, cresol, or lime, (which you can recognize because they have left burns around the mouth).
  - a. Feed the patient rice flour solution or raw egg whites. Do not try to make him vomit.
  - b. If he does not get better soon, he must be sent to the doctor. He should be kept warm and lie flat and still.
3. For other poisons.
  - a. Induce vomiting by giving strong salt (6 tablets to 1 glass) or soapy water or by tickling throat.
  - b. After the patient has vomited - dilute the poison by giving bland absorbing fluids, as water, weak tea, milk, or food such as rice flour solution or egg whites.
  - c. If patient does not get better after vomiting and taking food and drink, a doctor is needed.



### Medicine

None

### Prevention

1. Mark well all poison containers.
2. Keep poison and strong medicines away from children and those who do not understand them.
3. Be careful to give correct amount of correct medicine.

## UNCONSCIOUSNESS

### Description

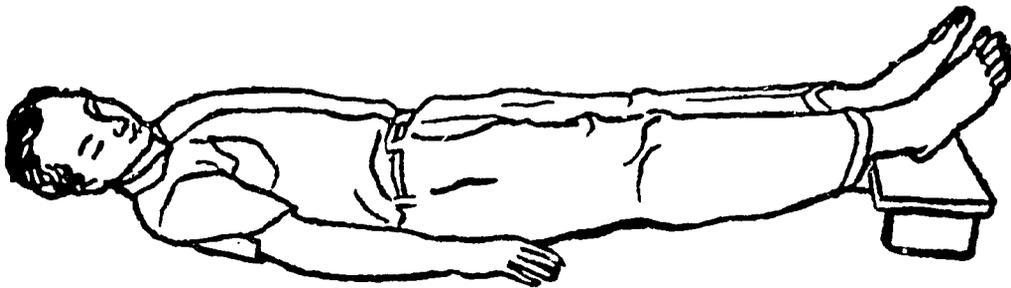
1. Cannot talk or understand anyone
2. May breathe little or none
3. Pale or gray skin

### Cause

Many different causes

### General Treatment

1. If there is anything in the mouth, remove it, turn head to side, and pull tongue forward.
2. Loosen tight clothing - belts, collars etc.
3. Do not try to give food or drink.
4. If unconscious only a few seconds or minutes put head low and feet high.



5. If unconsciousness lasts and the patient does not become conscious in a few minutes a doctor is needed.
6. Keep crowd away from patient.

SECTION II

DISEASES OF SKIN AND EYES

Infected Skin

Scabies

Lice

Infected Eyes

Virus Rashes

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## INFECTED SKIN

### Description

1. Skin gets red, swollen, hot and painful
2. Pus and crusts may form later
3. Swelling and pus may also form beneath the skin
4. Ulcers may form (skin dies in one or more spots and leaves a raw area uncovered).
5. Infection may be local or general
6. Fever may be present in severe cases.

### Cause

1. Germs growing in or under the skin
2. Germs can get into the skin by breaks in the skin which are too small to see.
3. Bites, scratching, rubbing may make such small breaks in the skin
4. Direct or indirect contact with another case of skin infection supplies the germs for a new infection.

### General Treatment

1. Clean off crusts with soap and boiled water as directed on page 14. If crusts do not come off easily soak them in warm boiled water as directed on page 23 for 1 hour or until they can be wiped off.
2. If the affected area is localized and red, soak the part in warm boiled water for 15 minutes every 4 hours.
3. Blot dry and apply iodine 2% in a thin film.
4. Leave uncovered or cover with a light piece of gauze to keep out flies and dirt. Do not bandage. Fasten the gauze by placing strips of adhesive at two corners of the dressing.



### Prevention

1. Follow the health rules and the germs are less likely to grow in your skin.
2. Keep the skin clean
3. Don't use an other person's clothes, wash cloths, wash basins, used water, combs and brushes, and beds or bedding.
4. Treat skin infections promptly to prevent their spread.
5. Burn or bury dressings from infected skin. Water used in washing

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sores must be buried or put in a pit privy.

6. Keep small wounds and bites clean - do not scratch insect bites.
7. Boil towels used by patient.
8. Keep the patient's sleeping mat clean.

#### Medicine

- A. Give Aspirin as directed on page 12 if there is pain.
- B. If temperature is 39°C or over give Sulfa tablets as directed on page 20.
- C. If temperature still remains high after three days send the patient to the doctor of the District Dispensary.

#### Prevention

1. Follow the health rules and the germs are less likely to grow in your skin.
2. Keep the skin clean.
3. Don't use another person's clothes, wash cloths, wash basins, used water, combs and brushes, and beds or bedding.
4. Treat skin infections promptly to prevent their spread.
5. Burn or bury dressings from infected skin. Water used in washing sores must be buried or put in a pit privy.
6. Keep small wounds and bites clean - do not scratch insect bites.
7. Boil towels used by patient.
8. Keep the patient's sleeping mat clean.

SCABLES (Itch)

Description

1. Itching is severe and is always present
2. First tiny red spots, then small blister-like spots and then scratch marks and crusted sores.
3. Usually begins between fingers and inner side of wrists.
4. Spreads all over body except head and face - especially abdomen, genital region and arm pits.

Cause

A very small animal called a mite which burrows into the skin where it lives and lays its eggs.

General Treatment

1. All members of the family of the patient who has scabies must be treated at the same time that the patient is treated. Eventhough they show no symptoms of the disease they may be carrying the itch mite on their skins.



## Medicine

### Benzyl Benzoate Saponated USP Solution

#### 1. First Day:

- a. Take a bath at night using lots of bar soap. Scrub the skin with a brush or rough cloth for at least 5 minutes. Rinse and dry the skin well.
- b. Apply Benzyl Benzoate Solution to whole body except face and scalp. Be sure that every spot on the body is covered with the Benzyl Benzoate Solution. Benzyl Benzoate from the first aid kit must be diluted with 3 parts of boiled water to 1 part of Benzyl Benzoate.
- c. Let Benzyl Benzoate dry 10 minutes.

#### 2. Second Day:

- a. Do not take a bath
- b. Apply a second coat of the Benzyl Benzoate Solution in the morning.

#### 3. Third Day:

- a. Do not take a bath
  - b. Apply a third coat of the Benzyl Benzoate Solution in the morning
  - c. At night take a bath and put on fresh clothes that have been boiled.
4. Wash all the clothes and bedding in the house or the disease will return. Boil all clothing and bedding possible. Clean the others with soap and water and air them. Ironing with a hot iron also kills the mites. Wash the straw mat with benzyl benzoate solution and after it stands about 8 hours wash again with soap and water and dry it in the sun.
5. It may take a few days for the rash to leave after the mites are dead. If the rash does not disappear in 10 days apply treatment again as stated above.
6. If a new rash develops while using Benzyl Benzoate do not use any more. Take the patient to the doctor or the district dispensary.

## Prevention

1. Kill mites by treating all cases and all members of the family
2. Cleanliness - follow the health rules
  - A. Frequent baths
  - B. Clean clothes
  - C. Clean Beds
3. Don't use another person's clothes or bedding - he might have scabies.

### Description

1. Itching and irritation of the skin.
2. Lice are found in the hair (head, axilla, pubes) or on the skin. Lice eggs are found stuck on the hair so that they come off with difficulty.

### Cause

Lice are small insects that suck blood for food and lay eggs to reproduce. They may carry serious diseases to people besides irritating the skin.

### General Treatment

All members of the family must be examined at the same time and all those with lice must be treated at once or the treatment will fail because of immediate re-infection.

### Precaution

If DDT is given to someone to take home, he should be warned that it is a poison and should be kept away from children or pets and should not be put where it might be mistaken for flour or food.

### Medicine

1. For head lice
  - a. Dust the hair with DDT or Lindane powder. See page 18
  - b. Cover the head with towel or cap for several hours. All the lice, in the hair, will be killed. However, the eggs which are stuck in the hair will continue to hatch for a week or more.
  - c. Every day for 1 week wash the hair, dry it and then reapply DDT powder. Use a brush and comb that have been sprinkled with DDT powder. DDT powder will not harm the hair, but will kill the lice as they emerge from the eggs. The second week wash the hair and apply the DDT powder every other day.



- d. The bedmats, pillows, and blankets should be washed and rinsed in DDT Solution as directed on page 18
2. For body lice
  - a. Use DDT on sleeping, bed clothing and clothing as directed on page 18
  - b. Every time an infected person bathes he should dust himself with DDT powder and put on clothes that been rinsed in DDT solution as directed on page 18. This process should continue for two weeks or longer if necessary. Carefulness is keeping the powder on all infected people and their clothing will result in effective extermination of the lice.
3. For pubic lice
  - a. Cut the hair in the affected area as short as possible. Dust with DDT or lindane powder.
  - b. Whenever the person washes in the affected area he should reapply the powder.
  - c. Continue this treatment for two weeks or longer if necessary.
4. Powder should be given the patient to take home to be used as directed on page 18

#### Prevention

1. Follow rules of health as regards cleanliness
  - a. Frequent baths
  - b. Wear clean clothes, wash often and if possible iron them.
  - c. Clean beds
2. Avoid contact with people who have lice
3. Avoid crowding whenever possible.

## INFECTED EYES

### Description

1. Discomfort in the eyes
2. Red eyes
3. Watery discharge or pus in the eyes

### Cause

Germs growing in the eyes

### General Treatment

1. Wash eye lids with boiled water and a wad of cotton, wiping toward the outer corner of eye. Use a separate piece of cotton for each eye.
2. Apply the Aureomycin Ophthalmic Ointment (page 12)
  - a. Tip patient's head back or have patient lie down.
  - b. Pull down lower lid
  - c. Squeeze 1 drop of Aureomycin Ophthalmic Ointment into the inside corner of the lower lid.
  - d. Do not touch eye-ball with ointment tube.
  - e. Pick up upper lid by the eyelashes and lift it down over the lower lid.
  - f. Have patient move eyes to distribute the ointment.
3. Repeat Aureomycin Ophthalmic Ointment in each eye 3 times daily until eyes seem well. Then continue the treatment once daily for 3 days. It is important to continue the treatment even after the eyes seem well. In serious cases the treatment may take weeks.
4. If eyes do not improve send the patient to the doctor or the district dispensary.



### Prevention

1. Follow the health rules
2. Avoid objects contaminated by people with sore eyes
3. Avoid common towels and common wash water
4. Do not touch your eyes with unwashed hands
5. Do not let insects get <sup>into</sup> your eyes. They may carry germs brought from sore eyes.

## VIRUS RASHES

### Description

1. Rash spreads all over body in a few hours or days.
2. Usually occurs in epidemics and in children.
3. Fever and general sickness overshadow the rash.

### Cause

Viruses growing in the body but not necessarily in the skin.  
Sulfa will not kill viruses as it will other germs.

### General Treatment

1. Rest in bed
2. Keep skin clean
3. Give patient plenty of fluids (boiled water or tea)
4. Keep patient warm and dry.
5. These diseases usually go away by themselves without special medicine, but in case of severe or prolonged illness, a doctor is needed.



### Medicine

Give Aspirin as directed on page 12

### Prevention

1. Follow the health rules to prevent spread of the viruses.
2. Keep patient away from others as these diseases are very easy to catch.

SECTION III

Respiratory Diseases and Cough

Colds

Ear Infections

Sore or Infected Throat

Lung Infection

COLDS AND COUGHS

Description

1. Irritation of the nose and throat starting abruptly.
2. Usually sneezing and nasal discharge which is watery at first and later thick with mucous.
3. Usually cough and hoarseness
4. Usually headache and slight general sickness
5. If temperature is 38°C or above or it is difficult to breath, the sickness is more than a cold.

Cause

1. Virus growing in the nose and throat.
2. Virus comes from another infected person
3. Virus grows easier if a person is chilled, wet or too tired.

General Treatment

1. Rest - rest in bed for 2-3 days
2. Keep warm and dry
3. Drink plenty of fluids (boiled water or tea) but eat lightly according to appetite.

Medicine

For colds and coughs

Give Aspirin as directed on page 12  
Give Brown Mixture as directed on page 13

Prevention

1. Follow the health rules.
2. Avoid getting cold, wet and too tired as this makes it easier for the virus to grow in your nose and throat.
3. Cover nose and mounth when coughing or sneezing or turn head away from other people.
4. Spit in a box or can and burn or bury it.
5. Avoid people with colds.
6. Avoid crowding.



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## EAR INFECTIONS

### Description

1. Pain in the ear after a cold starts .
2. Usually fever, either slight or high.
3. Discharge from the ear if the infection gets bad.

### Cause

Germs growing in the ear during a cold.

### General Treatment

If the ear discharges, keep the outer ear clean by washing with cotton and soap and boiled water. Do not force water or put anything into the ear canal.



### Medicine

- A. If temperature is less than 39°C  
Give Aspirin as directed on page 12
- B. If temperature is 39°C or above  
Give Aspirin as directed on page 12  
and Give Sulfa Tablets as directed on page 20

Any ear problem that lasts more than two days should receive attention from a doctor or the district dispensary.

### Prevention

1. Proper care of colds as described in this manual.
2. Any ear problem that lasts more than two days should receive attention from a doctor or the district dispensary. The patient should be instructed to return to the clinic in two days so the health worker can check on the progress of the illness.

## SORE OR INFECTED THROAT

### Description

1. Discomfort and redness in the throat.
2. Usually pain when swallowing.
3. Often headache and generalized aching; tiredness and weakness; tenderness in the neck; and chilliness followed by fever (NOT shaking chills as with malaria).
4. Throat may be swollen and have white or yellow spots.

### Cause

Germs growing in the patient's throat. These germs get there from another person's throat by way of contaminated food, drink, utensils or contaminated droplets made by coughing sneezing or kissing.

### General Treatment

1. Rest in bed if very sick or any fever.
2. Gargle throat every two hours with one glass of hot salt solution as directed on page 21
3. Drink plenty of fluids (boiled water or tea) but eat lightly according to appetite.



### Medicine

- A. Give Aspirin as directed on page 12
- B. If temperature is  $39^{\circ}\text{C}$  or above give Sulfa Tablets as directed on page 20
- C. If patient is not better in 3 days send to doctor or District Dispensary.

### Prevention

1. Follow the health rules completely and these germs cannot easily get ~~into~~ your throat.
2. Avoid getting cold and wet and too tired.
3. All utensils used by people with sore or infected throats must be washed with soap and water and then boiled for five minutes.
4. All patients with sore or infected throats must be separate from others and must not kiss others or cough or sneeze at them.

## LUNG INFECTION

### Description

1. A serious disease of the respiratory tract and the patient appears definitely sick.
2. Cough and usually sputum.
3. Fever  $38^{\circ}\text{C}$  or above.
4. Usually pain or discomfort in the chest which is often made worse by coughing.
5. May breathe rapidly and with difficulty.

### Cause

Germs growing in the lungs

1. Colds usually but not always have weakened the lungs first.
2. Germs come from the droplets and sputum coughed up by someone with lung infection.
3. Getting cold, wet or too tired allows the germs to grow easier.

### General Treatment

1. Bed rest
2. Keep warm and dry
3. Have the patient cough. Spit or blow into box or can which can be disposed of by burning or burying.

### Medicine

1. Give Aspirin as direct on page 12
2. If temperature is  $39^{\circ}\text{C}$  give Sulfa as directed on page 20

Any cough lasting more than two weeks might be caused by tuberculosis. A doctor must treat this disease because it is very serious and dangerous to other people.

SECTION IV

Intestinal Diseases

Diarrheas

Common Worms

DIARRHEA

Description

1. Loose or liquid bowel movements.
2. Frequent bowel movements.
3. Usually intermittent, crampy abdominal pain.
4. Usually nausea and sometimes vomiting.
5. Usually weak and tired
6. If severe or prolonged, patient gets dehydrated. Tongue becomes dry. Skin becomes dry, loose and inelastic.

Cause

Germ's growing in the bowels. They must get from one person's bowels to the next person's mouth in order to cause diarrhea. The germs are carried by dirty hands, dirty food, dirty water or flies.

General Treatment

1. Rest in bed if very sick.
2. Food - no food for 1 day and then small amounts of easily digested food for several days.
3. Drink a lot of fluid (boiled water, tea or rice broth). At least 1 liter in a day.
4. If vomiting, give a little fluid often (1 teaspoon every 5 minutes).
5. If diarrhea is very severe causing the patient to lose too much water send the patient to the doctor or the District Dispensary at once. If diarrhea continues for more than 3 days send the patient to the doctor or the District Dispensary.

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Medicine

Give Diarrhea Tablets as directed on page 17

Prevention

KEEP GERMS FROM FECES FROM GETTING INTO THE MOUTH.

1. Follow the health rules.
2. Dispose of stools by burying or use a covered privy so flies and insects cannot get germs from the stool and carry them to you.
3. Wash your hands after every bowel movement so that germs will not get from your fingers to your mouth.
4. Keep food covered so that flies, insects and animals can't carry germs to it.
5. Wash food in boiled water and eat freshly cooked food so there will be no germs on it.
6. Boil dishes and utensils, sun, dry and store them in a clean place so there will be no germs on them.
7. Wash your hands with soap just before eating to get rid of any germs on them. Germs may be on them although you cannot see them.
8. Use human manure or fertilizer only after it has been stored in a compost for six months.
9. Eat clean freshly prepared variety of foods daily.

## COMMON WORMS

### Description

1. Worms are found in the stool or they may be caught up through the mouth or nose.
  - A. They may be large (ascaris) like an earthworm
  - B. They may be small (pinworm) less than 1 cm.
2. Digestive troubles such as gas, stomach pains or diarrhea
3. Anemia with weakness and pallor due to loss of blood when many worms live in the bowels a long time.

### Cause

Worms growing in the bowels

1. They lay many eggs in the bowel and these eggs come out with the stool.
2. If the stool is not covered (buried or pit privy), the eggs contaminate the soil.
3. From the ground the eggs get onto fingers and food and back into another person's mouth and into his bowels.
4. In the case of hookworm, the eggs hatch in the ground and bore through the skin of people who don't wear shoes, or lie on the ground.
5. Other worms (tapeworms and trinchina) get into animals muscles and people get them by eating meat not completely cooked.

### General Treatment

1. Give worm medicine only after the worms are found.
2. Give Piperazine Tartrate Tablets as directed on page 19

### Prevention

1. Have patients examine the first stool after treatment to show the worm that caused the sickness.
2. Follow the health rules.

3. Always use a sanitary pit tightly covered and deep enough to prevent contaminating the soil with worms or their eggs.
4. Store human excreta 6 months before using as fertilizer to prevent contaminating the soil with worms and their eggs.
5. Wash your hands after going to the toilet and just before handling food or eating.
6. Wear shoes and keep skin free of dirt to avoid hookworm.
7. Cook meat thoroughly to avoid eating tapeworm or trichina which can grow inside you.

SECTION V

Fever and Pain

Malaria

Headaches

Backach and Joint Pains

Deficiency Disease

HEADCHES

Description

Aching or pain in the head

Cause

Many causes such as the beginning of a sickness, too tired or nervous or too much sun.

General Treatment

1. Rest

Medicine

Give Aspirin as directed on page 12.

BACKACHE AND JOINT PAINS

Description

Pain or aching in the back or in a joint as the knee, elbow or ankle.

Cause

Many causes such as the beginning of a sickness, too tired from use, or inflammation of the joint.

General Treatment

1. Rest
2. Heat - hot packs.

Precautions

In a child joint ache in the legs or arms may be the first symptoms of a very serious disease. If a child has pain in the joints over 1 week he should be taken to the doctor or District Dispensary.

Medicine

Give Aspirin as directed on page 12.

DEFICIENCY DISEASE

Description

1. Pallor
2. Weakness
3. Fatigue
4. Lack of appetite

Cause

1. Deficiency disease is a condition due to a lack of some substance in the diet which the body needs such as vitamins, iron and minerals such as iron.
2. This condition may occur in specific disease states. It may also occur without an obvious disease being present.

Medicine

Give Deficiency Tablet as directed on page 47. (Multivitamin Tablets)

Precaution

If patient has severe diarrhea or vomiting after taking Deficiency Tablets they should be stopped at once.

Prevention

1. Adequate rest
2. Varied diet including meat, vegetables and fruit in addition to rice.

## MALARIA (Chills and Fever)

### Description

1. Severe chill followed by severe fever, followed by severe sweating. Each phase may last 1 or more hours.
2. Usually headache and generalized weakness and aching during chill and fever.
3. May feel well between attacks which may come every day or every 2nd or 3rd day.
4. In long-lasting cases the patient usually becomes pale and weak and the spleen becomes large.

### Cause

Parasites growing in the patient's blood. These parasites are injected into the patient's blood by the bite of an infested mosquito.

### General Treatment

1. Rest - in bed during, chill and fever and sweating,
2. Keep warm with hot drinks and cover with blanket during chill.
3. Wipe away sweat and avoid chilling during sweating.
4. Blood smear should be made on every patient, but don't wait for results for giving medicine to the patients. District Health Worker will collect blood slides.

### Medicine

1. Give Chloroquin Diphosphate as directed on page 16.
2. Different manufacturers call Chloroquin Diphosphate by different names, such as Aralen, Rescchin, Nivaquine B, Avloclor, Tanakan, Sanoquin, SN 7618, 3377 RP. These medicines are much more effective than quinine and large amounts are not needed by each patient.
3. If patient has a relapse he should return to the health station for additional treatment.

### Prevention

1. Avoid mosquito bites use a mosquito net at night. One gets malaria only from the bite of an infected anophelos mosquito.
2. Spray DDT - this is carried out by Malaria Eradication Spray Teams, we should know their purpose, appreciate and participate in the spraying programs.

HOW TO TAKE A THICK BLOOD FILM

- Figure 1 : The package of new slides is opened by tearing off one end of the wrapping paper. Slides should always be held at the edges, or the ends, between the thumb and forefinger, to avoid touching the surfaces.
- Figure 2 : Any clean, sharp-pointed blade can be used as a sticker. When not in use; the sticker should be inserted in the under side of the cork of a low, wide-neck bottle and kept constantly immersed in alcohol.
- Figure 3 : A piece of emery paper is attached to the sticker bottle by means of a rubberband, this paper is used to clean and sharpen the sticker.
- Figure 4 : When sharpening the sticker, hold the emery paper over a package of slides or other solid surface.
- Figure 5 : Fill in all the required information on the "Notification of Fever Case" forms, taking care to indicate the collaborator's post number and the serial number of the slide.
- Figure 6 : Wipe the blade of the sticker clean with a wad of gauze or absorbent cotton moistened with alcohol. Place the cork holding the clean sticker on the table, on its side, in such manner as to prevent the sticker's point from touching any surface or object.
- Figure 7 : Before the puncture, clean the skin around the area selected with a wad of gauze or absorbent cotton saturated with alcohol, after squeezing the wad lightly to remove excess alcohol.
- Figure 8 : Puncture the finger with a sharp stab of the sticker, at the point marked "X".
- Figure 9 : The first drop of blood should carefully be wiped off the finger with a piece of dry gauze or cotton.
- Figure 10 : With a squeezing motion similar to that used in milking, another drop of blood is forced into the surface of the finger.

Figure 11 : A clean slide is held carefully at one end and the edge is steadied against the forefinger of the left hand which is holding the punctured finger, the slide is then gently lowered until its upper half contacts the upper portion of the blood drop and a part of the drop adheres to the slide. Care should be taken to prevent the slide from coming in contact with the skin. If sufficient blood remains on the finger, a second, smaller drop is placed on the slide  $3/4$  in, below the first one, thus preparing for the operation shown in Fig. 13.

Figure 12 : Place the slide face up on a sheet of paper and, using about  $1/4$  in of the lower edge of a second slide, spread the blood to form a square or rectangular smear.

Figure 13 : Spread this blood, or the second drop mentioned in Fig. 11, to form a thin smear.

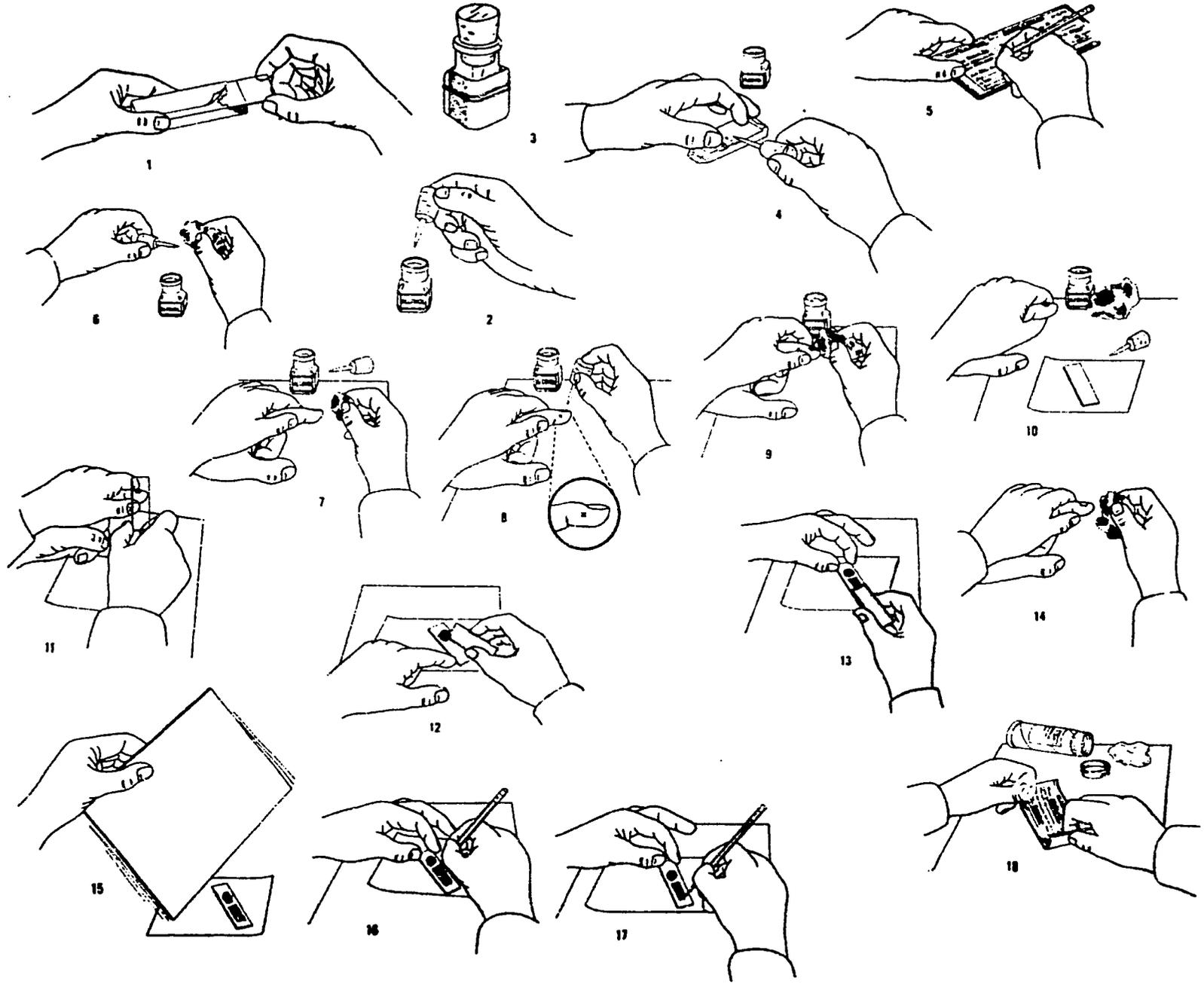
Figure 14 : Wipe the donor's finger with a wad of cotton of gauze saturated with alcohol, if bleeding continues, hold a piece of dry cotton over the puncture point until bleeding stops.

Figure 15 : To dry the blood smears, fan the slide with a piece of cardboard until the blood smear loses luster.

Figure 16 : Using a No. 1 pencil, write over the second of the two smears the collaborator's post number, the serial number of the slide, and the date on which it was prepared.

Figure 17: One slide is used for preparing a thick and thin blood film from one person.

Figure 18: One or two slides can be wrapped in the same identification slip as long as the smears they contain were taken from the same person. Also, three or more slides may be placed together and packed tightly in a slide wrapper. The identification slips are then wrapped around the compact package.



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