This text has been drafted with financial assistance from the Commission of the European Communities. The views expressed herein, in no way reflect the official opinion of the Commission. The procedure, explanations and treatment given in this publication are based on research and consultation with medical and nursing authorities. They all reflect accepted medical practices. Nevertheless they cannot be considered absolute and universal recommendations. The authors, the editor and the publisher disclaim responsibility for any adverse effects resulting directly or indirectly from the suggested procedures, from any undetected errors, or from the reader’s misunderstanding of the text.
Dear Readers,

When we design Health Messenger we try to do it as much as possible according to the choices of our readers. While visiting Nu Po and Mae La Camso last year, many of the medicals wanted to know about the kidneys and common diseases of the urinary system and also about the mental health of the refugees.

In this issue, we have sought to provide some information on the basic anatomy and physiology of the urinary system, particularly the kidneys. Two common mental health problems of refugees - stress and depression - are being addressed too.

You will also find a test with some questions related to the subjects of articles published in the current and last two issues (No.6,7). Other questions aim at obtaining your feedback and opinions regarding our magazine. We are interested to know what you think about the magazine, and we hope that you will be numerous to answer. It will be helpful for us.

We wish you good reading and don’t forget that you can send us your suggestions for new topics you would like to read about in the magazine.

Best regards.

Editor
Dr. Seerat Nasir
Fig 1. Coronal section of the kidney and ureter
The Urinary System

A brief account of the function of the urinary system, and description of its different organs and their respective roles.

The urinary system accomplishes two crucial tasks for our health. First, it removes waste products that the cells of our body continually generate. If not, we would be quickly poisoned by our own wastes. Second, it carefully regulates the water content of the body, and the concentration of the plasma constituents. Both of these roles are played by the kidneys, which filter water and soluble components of the blood. The waste products are eliminated by the kidneys through the production of urine.

Therefore the kidneys are the main component of the urinary system. The other organs, serve simply as transport channels (the two ureters and the urethra) and temporary reservoir for the urine (the urinary bladder).

The kidneys

The kidneys are two reddish brown, bean shaped organs positioned high in the abdominal cavity between the levels of the twelfth thoracic and third lumbar vertebrae. Each adult kidney is about 11.25 cm (4 in.) long, 5.5-7.7 cm (2-3 in.) wide, and 5.0 cm (2 in.) thick. The right kidney is situated slightly lower than the left as because it lies below the liver.

![Diagram of the urinary system](image)

Fig 2. The urinary system: Anterior view (male)
Fig 3. Enlarged section of the kidney showing nephrons

Fig 4. A single nephron and a collecting duct
Fig 5. Structure of a cortical nephron, including blood vessels
Fig 6. Sagittal section of the female pelvis showing the bladder and urethra
Each kidney is embedded in a sac that protects it from trauma and infection. A coronal section of the kidney shows two distinct regions and a major cavity: an outer renal cortex and an inner renal medulla. The cavity of the kidney, called renal pelvis, collects and transports urine from the kidney to the ureter.

Every day the kidneys filter about 1700 L of blood. Blood come to the kidneys through the renal artery, and approximately 1.2 L of blood pass through the kidneys every minute. The entire blood volume of the body (4 to 6L) is filtered through the kidneys about 340 times a day. Little of this blood supplies the kidney’s nutritive need. Instead this large blood flow through the kidneys enables them to maintain normal levels of body fluids.

The kidneys contain more than one million microscopic functional units, the nephrons, each of which is an independent urine-making unit.

**The nephron**

The nephron accomplishes the initial filtration of blood, the selective reabsorption back into the blood for filtered substances that are useful to the body, and the secretion of unwanted substances. Each nephron is composed of a vascular component and of a tubular component.

The tubular portion starts with the glomerular capsule and includes the proximal convoluted tubule, loop of the nephron (loop of Henle), and distal convoluted tubule. The vascular component is made up of blood vessels, and the main component is the glomerulus, a ball like tuft of capillaries, through which the water and solutes are filtered from the blood (glomerular filtration).

The filtered fluid then passes through the glomerular capsule which encloses the glomerulus like a hand around a ball, and in this way enters the tubular component of the nephron. Then a double process takes place:

1. The filtered materials that need to be preserved for the body are returned to the blood (tubular reabsorption).
2. The substances that need to be eliminated are secreted (tubular secretion) and pass after in the renal pelvis to be excreted as urine.

Reabsorption and secretion can happen because the kidney tubules and the peritubular capillaries are intimately related throughout their lengths, and transfer of materials can occur between the fluid inside the tubules and the blood within the peritubular capillaries.

*Fig 7. Sagittal section of the male pelvis. The longer male urethra also carries semen from the testes*
Fig 8. The urinary bladder

Fig 9. Various planes of the body
The Ureters

Each kidney has a tube attached to it, named the ureter, which is 25 to 30 cm (10 to 12 in.) long. Ureter transports urine from the renal pelvis to the urinary bladder.

The Urinary bladder

The urinary bladder is the hollow, muscular sac that collects urine from the ureters and stores it until it is excreted from the body through the urethra. It usually accumulates 300 to 400 ml of urine before emptying, but it can expand enough to hold 600 to 800 ml. The bladder is located on the floor of the pelvic cavity. In males, it is in front of the rectum and above the prostate gland. In females, it is located much lower, anterior to the uterus and upper vagina.

The Urethra

The tubular urethra conveys urine from the urinary bladder to the outside of the body. The passage of urine is controlled by two muscular sphincters surrounding the urethra: internal urethral sphincter and external urethral sphincter. The female urethra is a straight tube about 4 cm (1.5 in.) long. In the male it is about 20 cm. (8 in.) long and is S-shaped because of the shape of the penis. In the female it has a single function: to carry urine to the exterior and in the male it serves both the urinary and reproductive systems; i.e. it is the passage for both urine and semen.

Urinary disorders

Dysuria or painful urination, is a sign of a bacterial infection or blockage in the urinary tract.

Haematuria means blood in the urine, and is usually associated with trauma.

Oliguria is an insufficient output of urine, whereas polyuria is an excessive output. Low blood pressure and kidney failure are two causes of oliguria.

Uremia is a condition in which substances ordinarily excreted in the urine accumulate in the blood.

Enuresis or incontinence is the inability to control urination. It may be caused by psychological factors or by physiological malfunctioning.

The effects of aging on the urinary system

Kidney function usually decreases with age, from 100 percent at 25 years old to about 88 percent at 65, 78 percent at 65, 69 percent at 85, as arteries to the kidneys become narrowed. Kidney stones (renal calculi) can reduce the effectiveness of the kidneys even further. The renal plasma flow to the kidneys is progressively reduced to about half by age 70. Although some kidney tissue may be lost, each kidney needs only about 25 percent of its original tissue to function properly.

Frequent urination in elderly men may be due to enlargement of the prostate gland, which occurs in about 75 percent of men over 55. Incontinence (lack of control over urination) may result when muscles that control the release of urine from the bladder become weakened.

Glossary:

Coronal section: A longitudinal plane or section passing through the body at right angles to the median plane.

Glomerulus: A tuft or cluster; an anatomical structure of the kidney composed of blood vessels or nerve fibres.

Tubular: Shaped like a tube.

Peritubular: Situated around the tubule.

References:

This article gives a system for thinking about the possible causes of any disease, mentions some infections that cause the body's immune system to damage the kidneys (1), some drugs that can damage the kidneys (2), and some situations that can cause the kidneys to stop working suddenly in acute renal failure (3).

From the previous article we came to know about the functions of the kidneys. If one or both kidneys are damaged by disease, any of these functions can be upset. As we have learnt, a quarter of all the blood pumped by the heart (300 ml per minute) goes to the kidneys and normally 1 to 2 litres of urine are produced each day. Anything reducing the flow of blood to the kidneys or blocking the outflow of urine from the kidneys can cause damage to them; in addition to any disease directly affecting the kidneys themselves.

Some diseases damage mainly the glomerulus, causing glomerulonephritis (table 1). Some circumstances may damage mainly the tubules, causing tubular necrosis (table 3), some drugs damage mainly the interstitial tissue between the glomeruli and tubules, causing interstitial nephritis (table 2), and some diseases damage all the structures without discrimination (tumour, tuberculosis).

Some damages to the kidneys occur very quickly and is called Acute and some damages occur slowly over a long time and is called Chronic. Different kidney problems are much more common at different ages and it is important to consider the age of the patient when making a diagnosis.

### Causes of kidney disease may be thought about under the following headings:

<table>
<thead>
<tr>
<th>Congenital (inherited):</th>
<th>Acquired:</th>
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<tbody>
<tr>
<td>Aquired:</td>
<td>Trauma</td>
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<td>Tumour</td>
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<td>malignant</td>
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<td>Metabolic</td>
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<td>Vascular</td>
<td>Autoimmune connective tissue disease</td>
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<td>Immune complex disease</td>
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<td>Drugs and toxins</td>
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<td>Infection</td>
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<td>protozoa</td>
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<td>spirochaetae</td>
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<td>Kidney stones</td>
<td>Degenerative/age related</td>
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<td>Polycystic kidney disease</td>
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<td>Accidents</td>
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<td>renal cell carcinoma (old age)</td>
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<td>nephroblastoma (young age)</td>
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<td>myeloma</td>
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<td>diabetes</td>
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<td>high blood pressure</td>
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<td>gout (hyperuricaemia)</td>
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<td>renal artery obstruction</td>
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<tr>
<td>tuberculosis</td>
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<tr>
<td>malaria</td>
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<tr>
<td>syphilis, leptospirosis</td>
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<tr>
<td>စာရင်း</td>
<td>မြန်မာစာလိုအပ်ချက်များ</td>
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<td>ပေးမြို့ (အိမ် အပင်)</td>
<td>မီးအရေအတွက် နေထိုင်ရာအခြေ (အချိန် A, B-ကျော်)</td>
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<td>ကြားချွန် (အချိန်)</td>
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<td>အာရှမွေ (အာရှဒေ)</td>
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<td>HIV</td>
<td>မီးအရေအတွက်</td>
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စာရင်းစြားး –
အသုံးပြုနေရာ (စိန်ချ)
Symptoms and signs of kidney disease include:

- Oedema (swelling) of legs and face
- Pain in loin (below ribs at side and back, at the position of the kidney)
- Haematuria (either visible or on dip-stick testing of urine)
- Protein in urine or albuminuria (on dip-stick testing of urine)
- Fever
- Weakness/tiredness
- Raised blood pressure
- Anaemia

Some examples of renal disease and their causes
1. Oedema and protein, or blood and protein, in the urine on testing, sometimes with reduced urine output and/or hypertension are found in glomerulonephritis (damage to glomerulus) which may be caused by immune reaction to some infections.

<table>
<thead>
<tr>
<th>Table 1: Causes of glomerulonephritis</th>
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<tbody>
<tr>
<td>Virus: mumps, measles, hepatitis B,</td>
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<tr>
<td>Epstein Barr (glandular fever),</td>
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<tr>
<td>varicella (chicken pox), coxsackie,</td>
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<tr>
<td>HIV</td>
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<tr>
<td>Bacteria: streptococci (group A, b-haemolytic, tonsilitis), staphylococci (associated with scabies), gonococci, salmonella (typhoid etc.)</td>
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<tr>
<td>Parasites: Plasmodium malariae (PM malaria), Schistosoma, Filarisis</td>
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<tr>
<td>Spirochaetae: Treponema pallidum (syphilis)</td>
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</table>

2. Fever, arthralgia (joint pain), skin rash and renal failure may be caused by drugs damaging the tubules and tissue in between (tubulointerstitial nephritis).

<table>
<thead>
<tr>
<th>Table 2: Common causes of damage to tubules and tissue in between (tubulointerstitial nephritis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicillins (penicillin, ampicillin, amoxycillin), Cephalosporins, Sulphonamides (sulphamethoxazole), Rifampicin, NSAID (indomethacin, aspirin, ibuprofen, diclofenac, naproxen, mefenamic acid), Frusemide, Thiazides (bendrofluazide, hydrochlorothiazide), Cimetidine, Phenytoin</td>
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</tbody>
</table>
3. Acute tubular necrosis (damage to the tubules) may cause acute renal failure often with reduced urine output, anorexia, nausea, vomiting, itching, drowsiness, fits, coma or bleeding. Urea in the blood rises together with creatinine and often potassium is high. Acute pulmonary oedema may occur if too much water has been given.

<table>
<thead>
<tr>
<th>Causes of acute tubular necrosis which causes acute renal failure</th>
<th>Drugs</th>
</tr>
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<tbody>
<tr>
<td>Blood loss</td>
<td>Streptomycin</td>
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<tr>
<td>Burns</td>
<td>Gentamicin</td>
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<tr>
<td>Diarrhoea and vomiting</td>
<td>Frusemide</td>
</tr>
<tr>
<td>Heart attack</td>
<td>Aspirin</td>
</tr>
<tr>
<td>Heart failure</td>
<td>Indomethacin</td>
</tr>
<tr>
<td>Snake bite</td>
<td>Captopril</td>
</tr>
<tr>
<td>Toxic shock from infection</td>
<td>Pre-eclampsia and eclampsia</td>
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<tr>
<td>PF malaria with haemolysis (blackwater fever)</td>
<td>(hypertension of pregnancy)</td>
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</tbody>
</table>

Fig 2. The usual distribution of renal pain

4. Kidney stones (Renal calculi)

Renal calculi or stone of the kidneys are very common. Fifty per cent of patients present between the ages of 30 and 50 years. The symptoms are variable and the diagnosis can not be confirmed until the stone is discovered on a radiograph (X-ray). Some stones may not produce any symptoms. Usually pain is the leading symptom in 75 per cent of people with urinary stone disease. There may be fixed renal pain or ureteric colic. Other symptoms include haematuria or pyuria. Renal calculi may present as oxalate, phosphate or uric acid stones.

Points to consider

Water and salt balance is important. Too little fluid in dehydration or bleeding is bad for the kidneys and must be replaced. But be careful not to give too much fluid or salt to a person with weak or damaged kidneys.

Be especially careful with the balance of water and salt in old people, diabetics and people with high blood pressure.

Be careful to use drugs which can damage the kidneys only when really necessary.

Look for and treat diabetes and high blood pressure to prevent kidney damage.
Glossary:

Nephritis: Inflammation of the kidney.

Glomerulonephritis: A variety of kidney damage characterized by inflammation of the capillary (small blood vessel) loops in the glomeruli of the kidney. It occurs in acute or chronic forms and may be secondary to haemolytic streptococcal infection.

Tubular necrosis: Damage to the cells of the tubules.

Malignant: Tending to become progressively worse and to result in death.

Benign: Not malignant; not recurrent; favorable for recovery.

Carcinoma: A malignant new growth made up of epithelial cells tending to infiltrate the surrounding tissues and give rise to metastases (the spread of disease from one organ or part to another not directly connected to it).

Nephroblastoma: A rapidly growing malignant mixed tumor of the kidneys; it usually affects children before the fifth year, but may occur in the fetus and rarely in later life. Called also Wilm’s tumor.

Myeloma: A tumor composed of cells of the type normally found in the bone marrow (plasma cells).

Polycystic kidney: Kidneys containing multiple cysts. It usually passes from parents to children.

Autoimmune disease: A disorder caused by an immune response directed against the body’s own antigens.

References:


Many refugees experience stress. This may be because they do not know where their relatives are, or because they feel insecure about their future, or various other reasons. Some suffer more than the others from its effects. Many causes of stress can be prevented or reduced, thus greatly improving a person’s mental and physical health. This article will focus on the probable causes of stress, how to recognize persons under stress and how to cope with them.

Hans Selye, world-famous biological scientist, described stress as “the nonspecific response of the body to any demand made on it”. Stress can be viewed as a physiological response that results after one is exposed to some factor, agent, or event that forces the body to change or adapt.

Stress: Physiological and psychological state of imbalance caused by the body’s response to an unanticipated, disruptive, or stimulating event.

Stress can make the muscles tense and this tension can cause physical complaints which may in turn worry the stressed person. These worries may then increase the tension in the muscles and make the physical complaints worse. In other words, these persons experience increasing anxiety associated with physical complaints.

How to recognize people with high levels of stress

Stress may affect all domains of a person’s life, causing:
- mental distress
- physical symptoms
- behavioral change
- problems in relationships with other people

Individuals suffering from stress often do not complain about stress directly. Instead they complain of many different physical and mental symptoms. They may even develop illnesses that require medical treatment.

Individuals under stress may have any of a variety of symptoms.

Symptoms of mental stress
- Anxiety or getting angry easily
- Sadness, crying or feelings of helplessness
- Moods that change quickly
- Poor concentration, needing to be told things several times before understanding and remembering them
- Thinking about the same things again and again

People may find hard to describe their symptoms.
Symptoms of physical stress
- Tiredness
- Headache
- Tense muscles
- Palpitations or irregular heartbeat
- Breathlessness (feeling as though one cannot get enough air)
- Nausea (feeling sick) or pains in the abdomen
- Poor appetite
- Vague pains, for example in the arms, legs, or chest
- Disturbed monthly cycle (menstruation) in women

Symptoms of stress in behavior
- Reduced activity, no energy
- Overactivity and inability to rest (restlessness)
- Taking alcohol or drugs such as cannabis or opium to relieve tension
- Difficulty in concentrating on one task
- Sleep problems (reduced or disturbed sleep, too much sleep or sleep during the day)

Symptoms of stress in relationships with other people
- Lack of emotion
- Arguments and disagreements
- Too much dependence on others for decisions and support

How to cope with persons with stress

1) Find out the cause of the person’s problems
   Talking to members of the family or to others who know the person well is important. It is needed to know if the current behavior is normal for this person. Then you should ask what is not normal regarding the person’s present state.
   Try to find out about the possible causes and nature of the stress. Ask carefully about the experiences people have gone through. Find out about their current position and the future plans of the family or community.

2) Advise people how to deal with stress
   People under stress find it difficult to relax and should be taught special relaxation exercises. These are the most important aspect of treating someone with stress. There are many ways of relaxing, such as, reading, singing, listening to music or just resting. Ask people what they normally do to relax and encourage them to go on doing it.
   Refugees often feel isolated because they have left some of their family behind. Meeting other people with whom they can enjoy activities and share worries is an important way of reducing stress. It helps people cope with this difficult phase of their life.
   People need to be encouraged to change their behavior in order to:
   - restore the normal pattern of sleep at night, and engage in useful and enjoyable activity in the day
   - find positive ways of dealing with stress
   - stop harmful ways of dealing with stress

3) Educating people about stress
   People under stress can be supported both within a group or as individuals. The first step in this supportive process is to inform and educate them about stress. As many people are not able to understand the relationship between the symptoms and stress, it is needed to educate people under stress to recognize and deal with stress.
   People can learn to help themselves and get help from others. Just as sleep relieves tiredness, stress is relieved by simple relaxation exercises that anyone can learn.
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Alcohol and drugs must not be used to combat stress. Their pleasant effects last only a short time. Their harmful effects last longer. They can make stress worse and do great damage to mind and body. Alcohol and drugs will make anxiety, depression and sleeping problems worse and will reduce appetite and strength. They can also lead to loss of family, friends and the ability to work.

Stress affects the whole community. No one should feel that only he or she has this problem. When recovering from stress everyone needs help from other people.

4) Physical exercise
Physical exercise is necessary for good health and is useful in reducing stress. Even someone who is very tired - after a long journey, for instance - should have some exercise each day. Walking is a good exercise for elderly people (over 45 years) and swimming, football or something more active is suitable for younger people.

5) Other ways to cope with stress
Meditation can help reducing stress. The ways of meditating used in one’s culture can be as effective as the other methods of reducing stress.

It is important for health workers to recognize persons under stress and take good care of them. Otherwise it may cause physical, mental and social problems for the person and the community as a whole. They should be assured of good sleep, friendly atmosphere and social support.

Tips for restoring normal sleep
- Do not smoke, eat or drink during the night
- Do not read or listen to loud music at night and avoid listening to the radio or watching television late into the evening
- Avoid coffee and black tea, especially in the evening
- Eat your evening meal no later than 19:00 if possible
- Do not take alcohol or drugs
- A warm sweet drink (e.g. milk, but not coffee or tea) is good before bedtime
- Avoid arguments in the evenings
- Do not sleep during the day, unless a short rest in the afternoon is normal for the climate and culture
- The area between the eyebrows may be massaged gently and slowly for a few minutes before sleep

Glossary:
Physiological: Normal; characteristic or conforming to the normal functioning or state of the body or a tissue or organ.
Domain: Area

References:
1. Mental Health of Refugees, 1996, WHO in collaboration with the Office of the UN High Commissioner for Refugees.
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Depression

Depression is the situation in which a person is in a state of extreme sadness or feeling nothing at all. Some people call depression “heaviness of heart” or “loss of spirit or soul”. This article discusses its common causes and how to deal with persons with depression.

What causes depression

Several factors can cause depression. When a person loses someone or something important - a loved one, a job, hope and especially self-esteem, the person may easily suffer from depression.

When a person feels she or he makes a valuable contribution to her or his family and the community, she or he is said to have good self-esteem. A person with good self-esteem knows that she or he is being treated with respect. If the opposite happens, then she or he might become depressed.

Loss of control can cause depression. Some old women and men may feel depressed when their role in the family and community has changed, because they feel alone and worried about the future, or because they have health problem that causes pain and discomfort.

Trauma with the resultant invalidity is another matter that causes depression. Trauma threatens a person’s physical and mental well being. As a result, a person feels unsafe, insecure, helpless and unable to trust the world or people around. An amputee may feel helpless and angry towards the authorities and feel neglected.

After a person has experienced trauma, she or he may have different reactions.
- The person may go over the trauma again and again in her/his mind
- While awake the person keeps on remembering the terrible things that happened to her or him that generates self-pity and anger towards others
- The person might not be able to sleep during the night thinking of her or his ill fate
- The person may have nightmares related to the sad events and wake up frightened
- The person may feel ashamed of what had happened
- The person may feel separated and distant from other people

A refugee with home destroyed, separated from the family members, with very little to eat
and an uncertain future, can easily get depressed. Some common causes of depression among refugees include:
- A longing to return home and live freely but with no prospect of being able to do so
- Constant fear of host authorities, own authorities, enemy forces and even of the unknown
- An uncertain future
- Shattered dreams
- Idleness and boredom
- A feeling of unfairly treated or a sense of guilt
- Crowded living condition and lack of freedom

Depression may also be caused by physical problems, such as:
- Hormones and other changes in the body
- Malnutrition
- Infections and diseases, e.g. HIV, leprosy
- Pesticides, herbicides, and industrial solvents
- Liver or kidney diseases
- Too much medicines in the body, or side effects of some medicines
- Drug or alcohol abuse

However, not all depression cases have causes that can be identified. Sometimes we just do not know why someone develops depression.

How to diagnose Depression

A person suffering from depression may show the following signs lasting for a long time.

Signs
- Feeling sad most of the time
- Difficulty in sleeping or sleeping too much
- Difficulty in thinking clearly
- Loss of interest in pleasure activities, eating or sex
- Physical problems, such as, headaches, or intestinal problems, that have no biomedical cause
- Slow speech and movement
- Lack of energy in daily activities
- Thinking of death or suicide. Seriously depressed person can commit suicide

A person may suffer from some physical changes occurring due to depression.

Physical changes
- Quick heart beats
- High blood pressure
- Quick breathing
- Disruption in digestion

Consequences of depression
Depression can make a person socially invalid. The fatal consequence of depression is suicide.

Helping person with Mental Health Problems

There is no quick solution to mental health problems. If somebody promises "quick solution" to his/her mental health problems, then you should be concerned. Medicines for depression may be helpful but they are not always the solution for everybody.

Boosting self-esteem
Self-esteem is a very important part of good mental health. When a person knows that she or he is of value to the surrounding, the person will find the world a much happier place to live. The self-esteem of a depressed person is
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usually very low. The person’s self-esteem should be boosted. This will need the commitment of the person as well as support of the people around. Change can come through building on strengths that the person already has, like the person’s ability to form close supportive relationships with others or from learning new skills.

**Release of Feelings**
Depressed persons usually have trouble expressing their inner feelings to others. They should be encouraged to express them through poems, songs and stories or draw the feelings out without using words. They could keep these as their private possessions or share them with people they trust.

**Building inner Strength**
Beliefs and traditions that help calm the body and mind such as meditation, prayer, yoga and other local traditions should be tried.

**Building helping relationships**
Helping relationship means the sharing of problems between two individuals or members of a group. It needs mutual trust. The following are some ways to build trust between people or members of a group:

- Try to listen to everything other persons say.
- Do not be judgmental
- Try to understand how the other person feels. If you had a similar experience, think about how you felt about it. Avoid seeing somebody else’s experience as your own
- Do not tell another person what to do. You can help the person by understanding how the pressure of the family, community, and work responsibilities affect the person’s feelings, but the person must make her or his own decisions
- Never think of any person as beyond help
- Respect the other person’s privacy

**Starting a support group**
People who have mental health problems, often feel very lonely. Being with others, being able to talk about a problem, listening to problems of others may help. The followings are some suggestive steps of starting support group:

1. Find two or more people who want to start a group
2. Arrange a place and fix a time for the meeting. It is better to find a quiet place
3. Discuss what you hope to accomplish at the first meeting. Decide how the group will be led and whether new members can join later
4. Allow everybody to participate and speak, so that everybody can alternate as leader. Meeting together can bring about some of the followings:
   - getting support – depression often drains a person’s energy and makes her/him discouraged. Meeting together and talking can give a person more energy, which then help her/him to cope with daily problems
   - recognizing feelings – sometimes persons hide their feelings (or do not even realize the feelings exist) because they think the feelings are bad, dangerous or shameful. Hearing others talk about feelings can help a person notice her/his own
   - controlling impulsive reactions – group members can help a depressed person think through a problem so that the person will not act on her/his first impulse, without thinking
   - understanding underlying causes – by talk-
ing together, people with mental health problems come to realize that many of them suffer from the same kind of problems. This helps them identify the root of the problem.

- putting forth solutions - solutions that are discussed in a group are often more easily accepted and useful than those made individually.
- developing collective power - people acting together are more powerful than a person acting alone.

**Medicines for fighting Depression**

Medicines are sometimes necessary for the treatment of certain types of depression; but they should never be the only treatment. Medicines can only treat the physical problems, not solve the conditions that cause them. For severe depression where medicines may be necessary, consult physicians who know medicines for mental health problems.

**Helping someone with severe depression (who wants to commit suicide):**

Anyone who is suffering from serious depression is at risk of committing suicide. Such person needs urgent help. A person may not readily talk about thoughts of suicide, but will often admit them if asked. The following can be asked to find out his/her intentions:

- Does the person know how to kill him/herself?
- Does the person have the way to carry out the plan?
- Is the person planning to kill others as well?
- Has the person ever tried suicide before?
- Do alcohol or drugs affect the person’s judgment?
- Is the person isolated from family or friends?
- Has the person lost the desire to live?
- Does the person have a serious health or social problem?
- Is the person annoyed with his/her life?

If the answer to any of these questions is ‘yes’, the person is more at risk of attempting suicide than other people. To help, first try talking with the person. Listen to the person without interrupting or saying anything, except to encourage the speaker to say more. Some people may begin to feel better simply by telling you about their problems. If so or if the person still feels bad but is more in control of her/his feelings than before, ask her or him to promise that she/he will not hurt her/himself without talking to you first.

If a person does not feel relieved by talking, or if the person cannot promise to talk to you before inflicting any harm to her/himself, the person then needs to be watched closely. Tell the person that you plan to talk with others to help or protect her/him. Talk to the person’s family and friends, encouraging someone to be with the person all the time. Ask them to remove dangerous objects from her/his surroundings.

From the next issue, Health Messenger will start a column “Questions from the Field”. This column will deal with answering questions arising among our readers who are working in the camps and field levels. You are encouraged to send not more than two questions at a time. We will answer the questions which are helpful to all our readers.
Fig 1. CHE Training, Camp 2, Mae Hong Son
In the Karenni refugee camps in Amphur Mae Hong Son, community health education is an important component of the primary health care program. Community Health Educators (CHEs) in the Karenni camps wanted to share their experiences, both in actually doing health education and in recognizing the effects of their efforts. This article is based on the ideas and experiences of CHEs, working with Karenni refugees in Mae Hong Son regarding Community Health Education.

Health education often gets the least emphasis in primary health care programs. In many areas, the focus is usually on clinical treatment only - health education may not be done at all or may be done only sporadically. Although there are many reasons for this lack of interest in health education, the main reason is that health education is not a ‘quick fix’ - the effects of health education are difficult to see and measure, and a community’s health behavior may take years to change. The benefits of positive health practices, such as decreased morbidity and mortality and improved quality of life, are not always recognized as the result of health education.

What Is Community Health Education?

‘Being a human being, we have to understand the value or our life’. Elizabeth.

‘For a human, the most important thing is health - in order to be happy, people must be healthy - without health, you cannot be happy.’ Mee Mar.

‘Health education does not mean treating people to recover from their illness’. Saya Marako, CHE Program Supervisor.

‘The main focus of community health education is to prevent disease in the community - teaching people how to stay healthy BEFORE they get sick, that they should go to clinic when they get sick, and what to do so that they don’t get sick again.’ Poh Reh.

‘Health education is teaching people how to stay healthy and eat healthy.’ Naw Eh Shi.

As health workers, we all are likely to agree with these statements. But, we often forget that primary health care is comprised of many components, including disease treatment, disease prevention, and health promotion. For a primary health care program to be truly effective, the community must have knowledge of, for example, when to go to the clinic for treatment of ARI, how to stop the spread of TB, how to prevent contracting diarrhoea, and what types of foods to eat every day to stay healthy. Increasing community knowledge, attitudes, and practices regarding health behavior is where health education comes in.
Fig 3. Health Education among Padoung Tribe: Camp 3, Mae Hong Son
Why is Community Health Education so important

Health education is always important, but especially important in the refugee camps on the Thai-Burmese border. According to Doh Reh, ‘In many of the Karenni areas, people do not know how to prevent diseases.’ Bor Reh says that ‘In developing areas, like the Thai-Burmese border, people face many health problems - there are many communicable diseases on this border area.’

When people live together in crowded conditions, things like sanitation and waste disposal become much more of a threat to health, and diseases such as ARI and diarrhea are more easily transmitted. The community, as a whole, must be more aware and have the knowledge to prevent these diseases and promote their own health. Maw Re Moe notes that ‘if there was no health education, disease would spread from one person to a family to the whole camp.’

![Image](image.png)

Fig 4. Observing TB Day : Camp 2, Mae Hong Son

In addition, many people have beliefs about health and disease that are not based on facts about disease treatment, transmission, or prevention. According to Pyone Cho, people usually listen to other people who say ‘take this medicine, buy that medicine, don’t eat this food, etc.’ and that makes their disease worse. They don’t know that it can affect their life - they do not think that they can die if they have that disease or do that practice. Community health educators teach people about the source of a disease or how they get disease, how to prevent disease, and how diseases spread. Even if people do get sick, CHEs tell people how to get the proper care and treatment.

How is Health Education done in the Karenni camps

There are many ways to get health messages across, and different techniques work in different communities. Health education can be conducted anywhere and at any time, not just in the households, but also at the clinics, feeding centers, distribution sites, etc.

As there are many different ethnicities in the camp, there must be CHEs of different ethnicities to teach them. The community health educators in the Karenni camps have had years of experience disseminating health messages. They perform health education in many different ways – by group teaching in the different sections, home visit teaching, and teaching patients in the MCH and IPD/OPD clinics and use a variety of methods to be more effective, including using posters and pamphlets to teach, and teaching small groups at one time.

"In the camps, CHEs are working every day in the community giving education to small groups of 4-5 people - when there are less people, it is easier to explain. In the evening, CHEs do home visit teaching. The main target group of the CHEs are the people who most need health education. CHEs also do hygiene and sanitation checks in the community. CHEs find out which families need the most education, and then they check every month, and give health education and small gifts. Now, in the camps, people are more healthy and more competitive about how clean their houses are (they will look into each other’s house and compare if theirs is cleaner!).” Elizabeth.

CHEs also give health education in the MCH clinic to pregnant mothers, about prenatal care and how dangerous it is if they get malaria. CHEs give health education to breastfeeding mothers, and talk about how children’s health is important. In the IPD and OPD, depending on the patient’s diagnosis in the clinic and medic referral, CHEs also educate on other topics in the clinic. Special ‘health education’ rooms are set up next to each clinic, for CHEs to provide a quiet place to talk to patients and MCH recipients.

Bor Reh states that, for health workers, providing health messages in the community can
sometimes be a challenge and a problem, but if the CHEs have appropriate teaching aids, it is useful and more effective for both the health educators and the people coming to listen to them.

To reach those people who do not come to health education sessions, Sanda Moe notes that, home visit teaching is effective, so that those families can also stay healthy.

In addition, CHEs conduct event days, such as World AIDS Day and TB Day, and awareness campaigns, which draw camp residents in thousands. These events include such activities as staged role-plays, question and answer sessions with community members, prize distribution, songs and dance, etc.

Fig 6. ARI Campaign: Camp 2, Mae Hong Son

The effect of Health Education on the Community in the Karenni Camps

The CHEs in the Karenni camps are learning to recognize the impact of their efforts in the community in both reducing morbidity and mortality and promoting healthy behaviors.

'Three years ago, many refugees came into Thailand. At that time, there were only a few health educators, and the rate of disease transmission was very high. Then, many new CHEs were trained and they began to teach in the community. Now, partly because of the work of CHEs, there has been a reduction in the morbidity in the camp.' Mee Mar.

The effect on knowledge of disease prevention, hygiene and sanitation

Soh Thah says, 'Before health education was introduced in the camp, the community was not healthy and disease spread from one person to another. People didn't know how they got the diseases and when they got sick, other people would tell them to avoid certain foods. People had not seen injections or pills before, and never had vaccinations. Because of this, some people were sick and some died.'

Mary agrees, 'Previously, due to lack of health education, many people died because they did not know how to prevent diseases before they got sick and what to do when they were sick.' Nan Mu gives the example, 'they did not wash their hands before eating, cover their food, clean their dishes, boil water, and to use the latrine properly to prevent diarrhoea. They got diarrhoea and died but did not know what disease they died from.'

Soh Reh added, 'Before, when people got sick they thought it happened due to bad luck. Now, community health educators give them health prevention messages, and they know how they get the diseases and how to prevent them.' Also,' says Saw Thah Thoo, 'people had poor hygiene, but have now improved their hygiene and sanitation practices and they go to clinic when they get sick and they do not get treatment from untrained people.'

The effect on maternal and child health

'In case of pregnant women, sometimes both the mother and child died or the woman
စီးပါဝင်သူတို့၏ ကျေးဇူးသိမ်းမှုအတွက် ကိုယ်စားပြုသော စာဖျင်သာ စီမံခန့်ခွဲခြင်း ပြုလုပ်ခြင်း၀င်သည် ပြုလုပ်ကြည့်ကျော်စရာကောင်း ကျေးဇူးတွေ့ရှိပါတယ်။

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had a miscarriage. Even if some women delivered, the baby would die after three or four months. At that time, a pregnant women would avoid different kinds of foods and become malnourished. Even after they delivered, they would follow the tradition, eat only rice with salt and ginger, and would not eat anything else and stay in a dark room." says Seh Thah.

Pregnant women did not know that they should go regularly to clinic for antenatal check-ups. They also delivered babies with untrained midwives. These caused death of the babies during or after delivery. As an example of the effect of health education on infant mortality, Mary told about a woman who lost her two babies after delivery with an untrained midwife, but delivered safely her third baby as she followed the advices given by the CHEs to use MCH clinic. The woman was indeed very happy.

**Conclusion**

"Now the situation is a lot better than before because CHEs talk to camp residents every day. People know now how to prevent diseases and come to receive their vaccinations, and fewer people are sick these days. The health situation is becoming better and better every day." Seh Thah.

Health education is not only educating people about health and disease prevention. Health education can have even greater effect on the community as a whole. As Saw Kwar puts it, "Health education helps to improve the community living standard by teaching prevention messages to every people including those who cannot read and write, and to help them understand how diseases are spread, how to prevent diseases, and how to avoid or prevent getting a disease again."

"Community Health Educators are like the medicine plant of the community. People know now that prevention is more important than treatment. People understand that if there was no health education, they would be sick very often and feel sad all the time. Now, people know how happy they can be when they are healthy." Elizabeth.

"Community health education work like one pill of life-saving medicine. This pill can save many people from dying." Krayo Paw.

Health education is not only health educators responsibility, but of every health worker, including medics, medic assistants, MCH workers, etc. Saya Marako notes that, for the health situation, besides treating patients, health workers and community health educators can do one other important thing: teach the patients and the people in the community to prevent disease.

Saya Seh Rey, the Karenni Health Department's Clinical Supervisor says, 'Health is not only the health workers' responsibility - it is everybody's responsibility...the camp leaders, religious leaders, etc. If everyone participates, then health will improve.'

The following CHEs from Karenni camps #2, #3, and #5 submitted their ideas and writings for inclusion:

Camp #2 (BT) Saw Poh Reh, Saw Boh Reh, Saw Kree, Par Khu, Pleh Reh, Doh Reh, Thoo Kyaw, Saya Marako.
Camp #2 (BK) Maw Mee Mar, Sanda Nge, Nam Nga, Nga Reh, Eh Meh, Preeh Reh.
Camp #3 Saya Seh Reh, Naw Mary, Nah Mu, Elizabeth, Seh Thah, Mah Mal.
Camp #5 Maw Pyone Cho, Maw Re Moe, Saw Tsah Thoe, Saw Than Lwin, Thah Win Maung, Naw Eh Shi, Krayo Puh.
မိဘအားများသို့ အိမ်ခြေအားကို သိမ်းပို့သည်အသေးစိုက်မှုကို ဖော်ပြသည်။

ဗျူဟာကို နေထိုင်ရာ ကျွန်တော်မှာ အခြေခံကို သိမ်းပို့သည်။

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Contraception: The First Step

Taking a history, clinical examination and providing women with choices

In this article, I wish to present information on reproductive health care in a way that aims to be interesting. Learning does not have to be dull. I have tried to talk about family planning in a way that is clear, woman-friendly and encourages health care workers to think not only about the clinical aspects but also the social aspects of providing reproductive health care. This area of medicine is controversial and sensitive in every culture and community. Health workers need support and training to gain knowledge and overcome natural embarrassment.

It was mid-morning before Naw Paw got to talk with the medic. She had been practicing what she wanted to say in her head over and over so she would not stumble on the words. She felt embarrassed and could just as easily get up and walked away, but the calm female medic had smiled at her, so she decided to sit and wait under the shade of the hut with other women. The children played around their feet as they talked about their homes and families.

Finally her turn came and she bravely asked the medic for the medicine that stops babies.

Naw Paw is Brave

Naw Paw walked a long way with her smallest child tied on her back. By the time she reached the clinic, she was tired and thirsty. She asked a friendly looking woman where she should go and the woman pointed to a building with a roof made of leaves. It was the patient record office and she had to register her name before she could get what she had walked such a long way for.

Family Planning is the idea that help people to freely choose the size of their families.
- It saves the lives of women and children
- It improves the health of women and children
- It benefits families and communities
Contraception is the medical technology to do Family Planning.
- It is safe and effective
- Some forms of contraceptives can protect against sexually transmitted diseases
- It helps women and men to make responsible choices

Her heart was pounding and her mouth had gone dry. Naw Paw’s aunt had told her she was stupid to take the medicine and it was dangerous too. Naw Paw was not sure but she knew that the family had only just enough food for the children she already had. At 24 years, she was tired all the time and while washing the clothes, she felt dizzy. She remembered a time before her babies came when she had energy to laugh.

Health problems related to the lack of family planning services and contraception
- Every year about 550,000 women die during pregnancy or childbirth
- About 14.5 million babies and children under 5 years of age die from malnutrition, and it is thought that spacing birth could prevent 20% of these deaths
- Multiple and frequent pregnancies can lead to anaemia, maternal malnutrition and low birth weight babies
- If the woman is too young or too old when she gets pregnant, her and her baby’s health and life can be in danger

Cited from Lyons, JV & Huddart, JA, 1997, Integrating Reproductive Health into NGO Programs

Medical History and Examination

The medic began asking her questions. She asked about her last menstruation (LMP), how old her children were, if she had ever been ill, if she was still breast-feeding, how many more babies she would like to have, or if she had any pains or abnormal vaginal discharge. The questions went on and on. Some of the questions shocked Naw Paw. Naw Paw had not realized that the medic would want to know so much about her. It felt strange to tell this stranger her private business. Then the medic took her to a room and closed the door so nobody could look inside. Naw Paw was happy about that because some of the men from her village were in the clinic and she did not want them to know all about her private matters. The medic asked her to give a sample of urine. Naw Paw was surprised that there was so much to do before she could have the medicine that stopped babies.

Helping women choose

Once Naw Paw had tied her sarong, the medic began to explain all the different types of contraception; the pill, the injection, implants, condoms, the calendar/mucus method, the IUD and sterilization. Naw Paw knew that she wanted more babies one day, so the operation for sterilization was not for her, but what about all the other choices? Luckily the medic had some pictures too because it was difficult to remember everything. Naw Paw wished she had brought her husband with her to help her decide and she tried to think what he might say. The medic waited for her reply and asked her if she wanted to ask any question.

Naw Paw asked if the medicine was expensive because she only had thirty baht in her bag. The medic told her she could have the medicine for free. This surprised her but made her happy too. Well, if she did not have to pick the cheapest one, then she wanted the one that worked best. The medic said that they were all good if they were used correctly. Naw Paw did not understand, so that the medic explained. For example, the oral contraceptive pill can work very well from a medical perspective, but if the woman forgets to take the pill, it doesn’t work very well at all. Or some women find Depo injections and IUD make them bleed very heavily even though it stops conception well. Some men refuse to wear a condom even though if can stop sperms reaching the egg. So Naw Paw realized that she should choose the one she thought would work best for herself and her husband.

The medic told Naw Paw that she was quite healthy apart from some slight anemia, so
she could pick any contraceptive method she preferred. The medic talked about how to use each method and what the side effects might be. After the medic had talked about all these things, Naw Paw made her decision.

All of this had taken a long time and she was grateful that the medic had gone slowly so she could understand. She was excited to tell her husband all the new things she had learnt in the clinic. As she stood out on the dusty road waiting for a ride back home, Naw Paw felt very happy. Now she understood many things that had been a mystery before and she did not feel frightened that she would have to end the pregnancy by putting the poisonous sticks inside her body like some of her friends had done. She would come back again and bring her friends next time.

**Important points to remember**
- Women may feel ashamed or embarrassed when talking about fertility issues
- The medic's friendly manner is important to put the patient at ease
- A full medical and social history should be taken before prescribing contraception
- Women often need to resist and question strong social rules before they can access health care
- Women will need to be given clear and accurate information
- Women may have underlying medical problems that need attention
- If the woman has sugar in her urine, a high blood pressure, is a smoker, she may need other treatment and careful counselling regarding contraception
- Women may need extra time to think about their options
- Pictures can help the medic and the woman to think about all the options

*Help women choose the right method of contraception. Keep them healthy.*
Typhoid in Nu Poh camp

Hser Le, AMI medic, Nu Poh camp

In the Nu Poh camp, the AMI medical team detected the first case of Typhoid fever in July 1999. Since then the number of cases has increased slowly. The highest number (15) was detected in November and December 1999. As blood cultures were not possible to perform, typhoid was suspected by persistence of some signs and symptoms and was treated accordingly.

The number of patients with typhoid till December 1999 was 20. Eleven were male and 9 female. Their age varied from 6 to 60 years. Most of the patients complained of fever, chill, digestive problems such as slight diarrhea (3) and constipation (14). Loss of appetite (18), belly ache (14) and headache (15) were also reported by the patients. Red urine and burning urine were also reported but nothing was found during urine test in the laboratory.

The patients were treated first with Amoxycillin, Ampicillin, Gentamycin. But when the fever persisted typhoid was suspected and they were treated with Chloramphenicol. After that fever went down slowly and the patient became well again.

Some of the patients were referred to the Umphang hospital where they were diagnosed as typhoid cases after a blood culture. The complications of typhoid included perforation of the intestine (2) and peripheral neuropathy (2).

The source of the disease was thought to be from outside the camp. Drinking unboiled water might be the cause. Some Thai Karen villages outside the camp were also affected by typhoid.

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**Distribution per ages**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Cases</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>0-10 years</td>
</tr>
<tr>
<td>2</td>
<td>10-20 years</td>
</tr>
<tr>
<td>3</td>
<td>20-30 years</td>
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<td>4</td>
<td>30-40 years</td>
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<td>40-50 years</td>
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<td>6</td>
<td>50-60 years</td>
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<tr>
<td>7</td>
<td>60-70 years</td>
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</table>
Typhoid in MaeLa Camp

Dr. Agnès Sobry, MSF

At the beginning of November 1999, the MSF medical team noticed an abnormal rise in suspected Typhoid cases in Mae La camp in the previous weeks. The disease was occasionally diagnosed in the camps, but when doubling of cases in two consecutive weeks was observed, an outbreak investigation was launched. Blood cultures were sent to MaeSot hospital and positive results confirmed the disease. After confirmation of resistance to first line of antibiotics by laboratory testing, the protocol of treatment was reviewed and adapted to the laboratory results.

Clinical features

Diagnosis was difficult, as there were various clinical aspects of the disease. After sharing the concern with different doctors, who had past experience on Typhoid Fever, the following case definition was proposed:

First, exclude an evolutive malaria (malaria smear has to be negative) or an evolutive infection (general exam without any infectious focus).

The main signs were:
- high fever > 39 °C (more than 5 days)
- severe headache and asthenia (weakness and muscle pain)
- abdomen distended and painful (mainly right side); constipation or diarrhoea
- enlarged liver, eventually enlarged spleen
- dry and non-productive cough.

Preventives measures

Typhoid Fever is a contagious disease, transmitted either directly (dirty hands) or indirectly (contaminated food or water).

The preventive measures undertaken were:
- Isolation of the patients.
- General hygiene measures, similar to the ones used in cholera outbreak (including water testing for coliforms, chlorination of water sources).
- Health education was reinforced in the whole camp, especially in the most affected areas. Health education messages were transmitted in the schools through the headmasters and the teachers.
- The messages included:
  - Hand washing (before eating, after going to the latrines)
  - Hygiene of the house (cleaning, proper disposal of wastes etc.)
  - Hygiene of the food
  - Hygiene of water and water container

Immunization

A mass immunization campaign of the population between 3 and 20 years old has been conducted to control the outbreak inside the camp and to prevent the spread of typhoid to the surrounding villages.

WARNING: The vaccination does not replace preventive and hygiene measures.

Drink boiled/safe water

Wash your hands before eating

Eat fresh food

Always cover your food
The graduation ceremony of Primary Health Care Training Batch Number 4 was successfully held on 2 October 1999 at Mae Tao Clinic. Medic Saya Maung Maung acted as the master of ceremony and Dr. Cynthia Maung as the chairperson. The ceremony was attended by the students, medical staff, patients of the Out Patients Department and visitors from foreign countries.

A total of 55 students, 26 females and 29 males, graduated from the training.

The graduates from the various organizations would be sent back to their respective organizations while independent graduates would continue clinical training at Mae Tao Clinic for another two years. Together with Dr. Cynthia Maung, other trainers, Dr. Shisho, Sayama Naw Htoo, Saya Ko Htet Aung, Saya Ko Aung Pe, Sayama Paw Htoeki Wah, Sayama Paw Rusay, Saya Ko Ah Maung had enthusiastically cooperated in the success for the training.

News by -
Sayama Naw Eh Thwar (Supervisor)
Maternal and Child Health Programme Department
(WEAVE)
Drink more water, Keep your body waste-free

We are healthy and working well

Yeah, that's why poor bladder has more pressure

Phew! What a burden
In Memory of

Dr. H.M.Singh (1940-2000)

We lost a friend with the passing away of Dr. H. M. Singh, on 18 January, 2000. He was always very supportive of Health Messenger Magazine and encouraged its progress.

In this very sad moment, we have a special thought for his bereaved family and convey them our heartfelt condolences.

Health Messenger Magazine Team

Answers to Ten Questions of Issue No. 7

1. Mycobacterium tuberculosis
2. a
3. Lymph nodes, Meninges, Bone & joints, Gastrointestinal tract, Kidneys
4. Weight loss, Fever, Chest pain, Night sweats, Productive cough
5. Isoniazid, Pyrazinamide, Rifampicin, Ethambutol, Streptomycin
6. a) F b) F c) T d) F e) F f) T g) T
7. three early morning
8. Streptomycin/Kanamycin
9. Saliva
10. Directly, Observed, Treatment, Short-course : DOTS