

Are you confident enough to take medicines even without the doctor's prescription? Do you know what medicine to take for common illnesses? Do you know which medicine is safe and without harmful effects?

In this module, you will learn some important information on how to get the most from your medicine. The lessons that will be discussed will help you to identify the different kinds of medicines for different kinds of illnesses. You will also learn to recognize which medicine is safe to take or which has harmful effects on your health.

This module is divided into three lessons:

Lesson 1 – Common Illnesses

Lesson 2 – Medicines For Common Illnesses

Lesson 3 – Taking the Correct Dosage of Medicines



What Will You Learn From This Module?

After completing the module, you should be able to:

- identify some common illnesses and their symptoms;
- recognize the correct uses of prescribed and over-the-counter medicines for common illnesses;
- explain the guidelines in taking the right medicines; and
- identify the correct dosage of medicines based on their labels and prescriptions.



Let's See What You Already Know

Before you start studying the module, let's see how much you know of the medicines you take for common illnesses.

A. Match the branded medicines in Column A with the illnesses they cure in Column B. Write the letters in the blanks before the numbers.

	Column A	
1.	Amoxicillin	г
2.	Bactidol	t
3.	Betadine	С
4.	Biogesic	С
5.	Bisolvon	€
6.	Diatabs	f
7.	Midol	ć
8.	Neozep	r
9.	Ponstan	i.
10.	Visine	j.

B. Identify the illnesses shown in each of the illustration below. Write your answer on the space provided.







1.

2.

3.







4

5

6

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer key* on page 39.

If all your answers are correct, very good! That shows that you already know much about the topic. You may still read this module to add to what you already know.

If you have some mistakes, don't worry! This module is for you. It will help you understand important values and ideas that you can apply in your everyday life. If you study this module carefully, you will learn the answers to all the items in the test and a lot more! Are you ready?

You may now turn to the next page and start with Lesson 1.

Common Illnesses

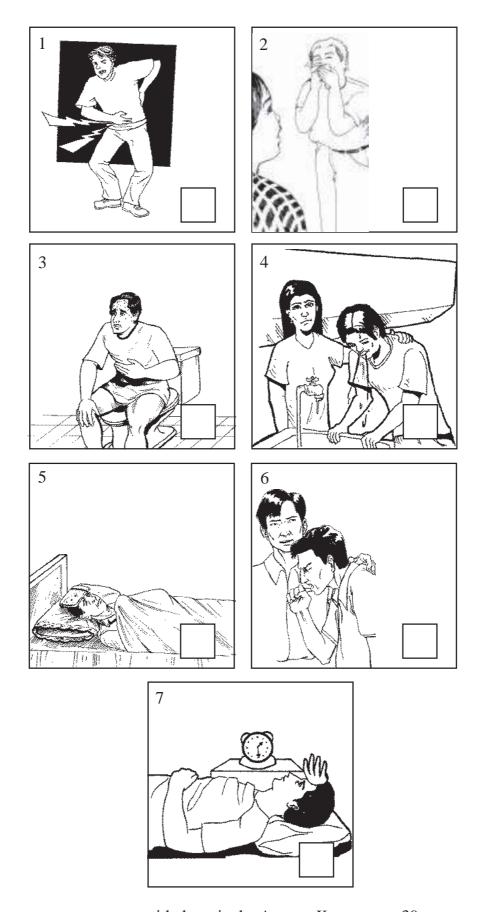
We are fortunate to live in an age where prescription medicines are readily available to cure and treat a wide variety of illnesses, diseases and conditions. But first, you should be able to identify correctly what particular disease you are experiencing. Have you ever had to differentiate a common illness from a severe one? Can you determine the difference of common colds from flu? Can you recognize immediately the symptoms of common illnesses?

This lesson will briefly discuss common illnesses that you have probably experienced, what to do and how to treat them. This will help you to fully understand how to deal with these once you encounter them so that you can prevent them from leading to severe illness.

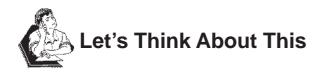


Study the pictures of common illnesses on the next page. Match each picture with its list of symptoms below. Write only the letter of the answer in the box at the lower right corner of the picture.

- a. mild cough, sneezing, dry and scratchy throat, runny and stuffy nose and chills.
- b. high body temperature, headache, muscle pain, exhaustion and loss of appetite
- c. fever, stomachaches, frequent and watery stool
- d. inability to fall asleep; not feeling rested in the morning
- e. motion sickness, vomiting caused by overeating, overdrinking or emotional upset.
- f. inconsistent and difficult bowel movement; hard and dry stools
- g. a natural reflex that rids the lungs of excess secretion or mucus



Compare your answers with those in the *Answer Key* on page 39.



What other illnesses have you experienced aside from those given above? What were their symptoms? Write your answers in the box below.

Symptoms	Illness

Continue reading to find out if your answers are correct.



Below are some common illnesses that most of us experience. You will also learn about their common symptoms, as well as medicines that you may take to prevent them from occurring.

Colds and Flu

The common cold is caused by viruses. Cold symptoms occur quickly, progress rapidly, and disappear. Symptoms of a common cold include runny and stuffy nose, watering eyes, sore and scratchy throat, hacking cough and chills. These generally last five to seven days.

When symptoms last for seven to ten days or more, you should consult a physician regarding what may be a more severe infection. The symptoms of the common cold often lead to influenza or flu. It is very helpful for you to differentiate between the two. If you have difficulty in recognizing their symptoms, please refer to the table on the next page.

Is it a Common Cold or Influenza?

Symptom	Common Cold	Influenza
Cough (dry)	mild to moderate	moderate to severe
Fever	rare	common
Fatigue	mild	severe
Headache	rare	common
Muscle and joint pains	slight	common

Cough

Cough is a natural reflex to lung irritation. It rids the lungs of excess secretion or mucus. It usually contains phlegm that may lead to severe pulmonary disease.

There are several relievers to different kinds of cough.

- Antitussives are used to reduce the frequency of a cough, especially if that cough is dry and unproductive.
- ♦ Expectorants are used to help loosen up the phlegm in your chest so you can get it out. Expectorants should be used for productive coughs. A productive cough is one that brings up or tries to bring up phlegm.

How do you decide which kind of cough medicine to use?

If you have a dry hacking cough with no phlegm, you should use an *antitussive*.

If you have a wet cough with phlegm, you should use an *expectorant*.

Fever

Fever is generally recognized as a body temperature above 37 degrees Celsius or 99.5 degrees Fahrenheit. Fever often accompanies a viral infection, bacterial infection, dehydration, sweating, headache, muscle pain, joint pain, back pain, rapid heart rate, and loss of appetite.

Constipation

Constipation is the inconsistency of bowel movement and difficulty in moving one's bowel. Normal bowel movement will vary from person to person. The average person can have anywhere between three bowel movements a day to three bowel movements a week. There is nothing wrong if you fall within this range.

So what does this mean? You don't have to worry if you only have two bowel movements a week, as long as they are fairly soft and pass easily, you are probably just fine.

Diarrhea

Diarrhea, which is characterized by frequent or watery stool, is the body's way of ridding itself of toxins and foreign substances. Diarrhea may be caused by viruses, bacteria and fungi present in contaminated food and water. Allergic reactions to milk and food also causes diarrhea. Vomiting and stomachache often accompany diarrhea. A fever may or may not be present.

Most cases of diarrhea can be treated by allowing the body to flush itself clean, while drinking plenty of liquids. However, diarrhea can also cause serious problems. It can cause you to be dehydrated or lose body fluids, which are very important for your body's proper functioning. That is why it is important to drink plenty of water and other liquids when you have diarrhea.

Loperamide (known as Immodium), Kaolin-pectin (Kaopectate), Bismuth subsalicylate (Pepto-Bismol), Lomotil and others are some of medicines that can be taken when you have diarrhea.



Let's Think About This

think of ways on how to treat diarrhea? Write your ideas on the lines below.	^

Have you ever experienced having a diarrhea? Based on your experience, can you

Compare your answers with these:

There are two important things that we should do when we have diarrhea. First, we want to prevent too much fluid from being lost and secondly, we want to stop the diarrhea.

Here are some ways on how to treat diarrhea:

- 1. Drink lots of fluids like water or juice.
- 2. Avoid carbonated beverages like cola.
- 3. Do not eat for about four hours from the time the diarrhea started.
- 4. After four hours, you may begin eating small quantities of soft foods like bananas and rice.
- 5. Slowly return to your normal diet.
- 6. Avoid milk and dairy products for seven to ten days.
- 7. Avoid spicy and fatty foods for five to six days.
- 8. See a doctor if diarrhea persists or is very acute.

Here are more common illnesses, as well as their symptoms and medications:

Nausea and Vomiting

Nausea is a motion sickness; feeling of dizziness and usually accompanied by vomiting. Nausea is associated with either overeating or overdrinking, and emotional upset.

What do you do if you feel nausea or have vomited to help you feel better?				

Motion sickness can happen to anyone, but some people are more likely to experience motion sickness than others. People who know they get nauseous can use nonprescription drugs to help prevent the motion sickness from occurring. Preventing motion sickness works much better than trying to get rid of it once it occurs.

Insomnia

Insomnia is one of the most common problems of older people. As we grow older, it is more difficult for us to get to sleep. Insomnia is explained as the inability to fall asleep, to stay asleep, or not feeling rested in the morning. *Short-term* and *transient* insomnia can be treated with nonprescription drugs. But if you have experienced insomnia for more than three weeks, you need to see your doctor.

What is *short-term* and transient insomnia?

Transient insomnia lasts for only a few days and is often affected by environmental changes like travel or hospitalization.

Short-term insomnia lasts for more than three weeks and is often triggered by stressful events such as the death of a loved one, loss of a job, or separation.



Can you cite some ways of how to prevent or cure insomnia?			
Discuss this with your friends, family members and co-learners:			

If you have not yet experienced this kind of illness, here are some guidelines that will help you prevent it:

TEN TIPS FOR GOOD SLEEPING HABITS

- 1. Follow a regular sleeping pattern. Go to bed and try to wake up at about the same time everyday.
- 2. Make the bedroom comfortable for sleeping. Avoid too much warm or cold temperature in your room, as well as noise and light.
- 3. Sleep only as much as you need to feel rested.
- 4. Use your bed only for sleep or intimacy.
- 5. Do not try to force sleep. If you do not go to sleep within 20 to 30 minutes, get up and do something relaxing until you are sleepy.
- 6. Avoid daytime naps.
- 7. Exercise regularly, but not late in the evening.
- 8. Avoid taking alcohol, caffeine and nicotine.
- 9. Avoid fullness or hunger at bedtime.
- 10. Avoid drinking large quantities of liquids in the evening to prevent nighttime trips to the restroom.



Let's Think About This

W	hat is the impor	tance of determin	ing the illness th	at you have based	d on its
sympte	oms? What abou	it taking the corre	ct medicine for i	t?	
		C			
_					
_					

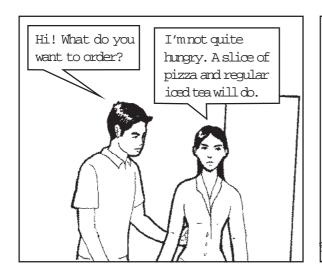
Your answer may be similar to this:

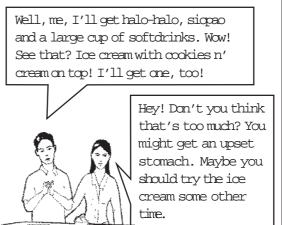
Determining the illness that you have based on its symptoms will guide you in what treatment to take and special measures to do. For example, if you know the symptoms of a common cold, you will be able to differentiate it from a flu. So, if you are feeling the symptoms of a flu, you will be able to take the necessary treatment for a flu and not just treat it as a common cold.

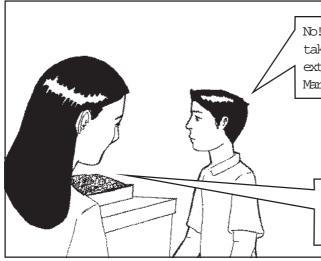
To explain what could happen if you take the wrong kind of medicine, read the story on the next page.



Carlos and Marie meet at the canteen for a 30-minute break from work.







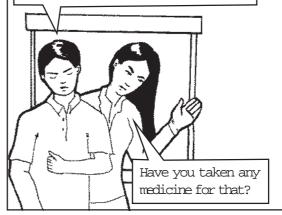
No! I'm craving for all of them! I haven't taken my lunch yet because the meeting extended until 2:30. I'm so hungry,
Marie. I can't wait to eat them all!

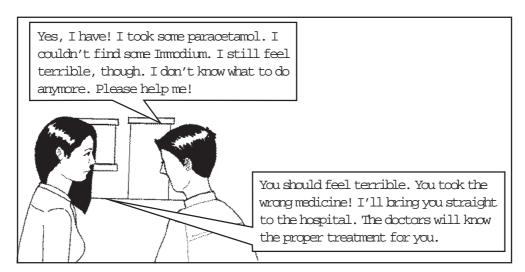
Okay. If you think you can eat all of that. Don't blame me if something goes wrong. I already reminded you.

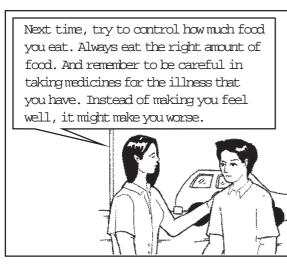
After office hours, Marie saw Carlos looking very sick.

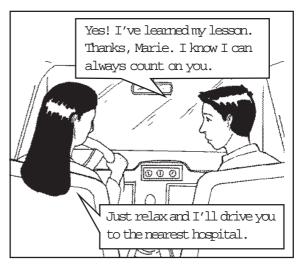


My stanach is aching terribly. I've been experiencing this since we ate at the canteen. In fact, I went to the comfort room thrice already.









What do you think happened to Carlos? What caused his stomach pain? Based on the symptoms that he is feeling, what is his illness? What medicine did he take? What medicine should he take? Can you think of what might happen if he does not go to a doctor? Write your answers below.

Compare your answers with these:

Carlos got sick. The stomach pains and frequent need of Carlos to go to the comfort room are symptoms of diarrhea. He probably got the diarrhea from the food that he ate. Remember that diarrhea is commonly caused by viruses and bacteria present in food. Allergic reaction to milk and food sensitivity may also cause diarrhea. Carlos should have taken antidiarrheal medicines, such as Imodium,

Kaopectate and others. Instead, he took Biogesic, a paracetamol, which is a pain killer. Taking the wrong medicine for his particular illness may have contributed to making his condition worse. In this case, Carlos should be taken to a doctor for further treatment.

In the next lesson, you will learn about what medicines to take on your own (selfmedication) and what medicines are taken with the guidance of a doctor (prescription medicines). You will also learn about the right medicine to use for a particular illness.



, L	et	s See What You Hav	/e L	Learned
		ell do you understand what you uestions below. Encircle the		ve read in this lesson? To find out, er of the correct answer.
1.		nat common illness is characted and dry stools?	terize	ed by inconsistent bowel movement with
	a.	diarrhea	c.	insomnia
	b.	constipation	d.	influenza
2.		nat do you call the inability to ted in the morning?	o fall	asleep, often leading to not feeling
	a.	insomnia	c.	fever
	b.	diarrhea	d.	flu
3. Stomachaches, frequent and watery stools and vomiting, characterize illness. What is this?				stools and vomiting, characterize this
	a.	constipation	c.	diarrhea
	b.	fever	d.	flu
4.	Thi	is is a natural reflex of the lu	ngs t	o rid of excess mucus. What is this?
	a.	cold	c.	insomnia
	b.	coughing	d.	influenza
5.	Wh	nich of these medicines shoul	d be	taken when you have a dry cough?
	a.	antitussive	c.	loperamide
	b.	expectorant	d.	Lomotil
6. What illness is characterized by a high pain, exhaustion and loss of appetite?			gh body temperature, headache, muscle?	
	a.	fever	c.	nausea
	b.	diarrhea	d.	influenza

- 7. The common cold is characterized by what symptoms?
 - a. sneezing, watery eyes and hacking cough
 - b. dry and scratchy throat and chills
 - c. irregular bowel movement
 - d. both a and b
- 8. Nausea is characterized by what symptoms?
 - a. dizziness and vomiting
 - b. dry and scratchy throat
 - c. frequent and watery stools
 - d. none of the above
- 9. Which is not an antidiarrheal medicine?
 - a. loperamide
- c. expectorant

b. lomotil

- d. bismuth subsalicylate
- 10. A common cold may become severe and lead to what kind of illness?
 - a. flu
 - b. influenza
 - c. fever
 - d. all of the above

Well, how was it? Do you think that you got all the correct answers? Compare your answers with those in the *Answer Key* on pages 40–41.

If you got all the right answers, very good! You are now ready for the next lesson. If you made some mistakes, don't feel bad. Review the parts of this lesson that aren't clear to you.

Before you proceed to the next lesson, read the summary on the next page to help you remember the important points of this lesson.



In this lesson, you have learned to identify the symptoms of common illnesses and the ways to prevent and treat them. These common illnesses include the following:

- ♦ Common colds, which is characterized by slight fever, runny and stuffy nose, watery eyes, dry and scratchy throat and chills. These may become worse and may lead to a flu with symptoms of moderate to severe cough, fever, headache and fatigue;
- Fever is having a body temperature higher than the normal one, which is 37 degrees Celsius;
- Diarrhea is having frequent and watery stools, stomachaches and vomiting;
- Constipation is the inconsistency and difficulty in bowel movements, hard and dry stools;
- Nausea and vomiting is a motion sickness associated with over eating and overdrinking, emotional upset and others;
- Insomnia is the difficulty in falling asleep, often followed by not feeling rested in the morning.

Medicines For Common Illnesses



In Lesson 1, you have learned about common illnesses experienced by many Filipinos. In this lesson, you will learn how to treat the common illnesses by identifying the right prescribed and non-prescribed medicines to take.

After studying this lesson, you should be able to:

- identify over-the-counter (OTC) and prescription medicines; and
- discuss the proper procedure in taking OTC and prescription medicines.



Let's see your own attitude towards taking drugs or medicines.

Put a check mark under the appropriate column (Yes or No).

Questions	Yes	No
Do you always take medicines without a doctor's prescription?		
Do you experience some unwanted side effects after taking medicines?		
Do you always go for over-the-counter medicines?		
Do you always read the instructions on the label before taking the medicine?		
Do you take medicines prescribed for others who have similar symptoms as you?		
If you feel that you're not getting well with your medicine, do you take larger dose than told?		
Do you always choose to buy the cheapest drug disregarding its ingredients and capability to treat illness?		

Well, how was it? Did you answer the questions honestly? If most of your answers are *yes*, then you are taking a great risk in using drugs or medicines, even those that are not prescribed by your doctor. Don't worry; this module will help you identify and recognize the prescription and over-the-counter medicines for common illnesses. Read on to learn about them.



Most common illnesses can be treated through **self-medication.** In fact, it is the first line of defense in treating an illness. It includes understanding your body and its signs and symptoms. When symptoms appear, they must be treated accordingly.

Self-medication involves taking **over-the-counter** (**OTC**) medicines. They are called over-the-counter medicines because they can be bought directly from the counters of drug stores and even grocery stores. Also, you don't need a prescription from your doctor to buy these medicines. Because of this, people sometimes think that they are safe to take. However, these medicine may sometimes create more problems.

OTC medicines can be effectively used to treat the symptoms associated with illness or disease. However, if the wrong medicine is taken, it can cause harm and, at times, lead to severe sickness. Therefore, it is important to know about the OTC drugs as well as the prescription medicines you take.

What are the safety considerations in taking OTC medicines?

When buying OTC medicines, you should read and follow the instructions on the label carefully. The label should also be checked each time the product is purchased. It isn't safe to assume that the dose is always the same. Check also the ingredients and see if it is most appropriate for that particular ailment.

It is very important to remember that *OTC drugs suppress symptoms*. *They do not cure disease*. That is why these drugs are recommended for minor ailments like headaches, muscle pains, indigestion, diarrhea, fever, cough and colds, among others.

Some people experience adverse effects from OTC drugs even when using them properly. A severe allergic reaction may occur to some analgesics. Remember what happened to Desmund in our story? After taking the medicine without looking at the label, spots appeared all over his body. It means that the drugs caused an allergic reaction in his body.

One should also be careful when using OTC medications for small children or the elderly. The dose of the drug is very important in both cases. In children, it is very difficult to determine whether a symptom is of a minor or major ailment. A disease progresses very fast in children. Listed below are some basic guidelines on buying and taking OTC drugs.

Basic Guidelines for Over-the-Counter Drugs

- 1. Read the instructions about the dose. Any one below 12 years is considered a child.
- 2. The drug dose is according to the body weight. If you find any child below 12 years over weight, the dose can be increased slightly.
- 3. If someone is between 12-15 years and he is underweight, he should be considered for under 12 years dose schedule.
- 4. Always start with a smaller dose for elderly people.
- 5. Always follow instructions on the labels.
- 6. Never take extra doses to speed up recovery. This may cause adverse effects.
- 7. Never deceive your child, telling him drugs are sweets, syrups, soft drinks, or chocolates. If the child happens to like the taste of the drug, he may steal it and eat it.
- 8. Identify your weak points and commonly suffered ailments. During a visit to the doctor ask him what over-the-counter medicines you may safely take to treat the symptoms of the common ailments.



Let's Think About This

1.	Think of several medicines that you often buy over-the-counter at a drugstore. Write them in the blanks below.		
2.	What made you decide to buy these medicines?		
3.	For what illness/es did you buy these medicines? Did they treat your illness/es quickly?		
4.	Have you encountered any side effects after taking these medicines? If yes, how did you go about it?		

Compare your answers with those in the Answer Key on page 41.

Let's continue our discussion on over-the-counter (OTC) medicines.



Let's Read

Now read about using over-the-counter medicines for different common ailments and find out what common OTC drugs are appropriate to use.

Cold Medicines

Many types of cold medicines in different combinations are available in the market. Basically, they are combinations of **painkiller** and **decongestant.** There is no harm in trying out these formulas. You can select any cold remedy according to your own experience. If these formulas are not effective, see your doctor for the proper prescription. Asthma and peptic ulcer patients should be careful in buying aspirin

containing cold cures. Usually colds are accompanied by cough and sore throat. Most cold remedies contain a variety of drug ingredients which also cure other ailments. Occasionally, a cold may be a sign of a more serious condition. A doctor should be consulted if symptoms persist for more than a week, especially if chest pain occurs. Fever and pain are also likely to accompany a common cold and may indicate influenza.

Cough Syrups

Many commercial preparations for cough are a combination of cough suppressant and expectorant. Taking cough suppressants for wet cough with phlegm can be harmful. Cough syrups containing *codeine* as a suppressants can cause constipation if used in excess. If you have dry cough with minimal sputum (phlegm) you can choose any commercial cough syrup, but in case of yellow sputum, never take an OTC medicine.

The best treatment for coughs and colds may still be the old-fashioned remedies: taking lots of fluids and rest.

Painkillers

Two main types of pain killers are available over the counter: *Paracetamol* and *Aspirin* or sometimes, both as combination.

Paracetamol is the safest painkiller of all. You can check with your pharmacist for brand names. On the other hand, Aspirin is another good painkiller available overthe-counter and freely advertised. Only old people, or people who suffer from asthma, peptic ulcer and hyperacidity should avoid Aspirin. Why?

Aspirin blocks the substance that protects our digestive tract from stomach acid that causes ulcers, stomach upset and even bleeding.

Taking aspirin can also cause asthma. People with asthma are likely to develop wheezing or sneezing if they take aspirin. Allergy to aspirin can lead to rash or severe breathing difficulties. Large doses of aspirin can also cause ringing in the ears.

Analgesic and Anti-Fever Products

There are five ingredients that are available in non-prescription strengths to treat pain or fever. These are: 1) aspirin, 2) acetaminophen, 3) ibuprofen, 4) ketoprofen, and 5) naproxen. The side effects associated with these medications vary greatly. If you have any illness or chronic condition that has been diagnosed, or is being treated with other medications, or if you are pregnant, it is important to consult your physician before taking any of these medications.

The table below shows over-the-counter (OTC) pain and fever relievers.

	Aspirin	Acetaminopen	Ibuprofe
Sample	Anacin,	Excedrin	Adil
brand names	Ascriptin Bayer	Panadol	Ibuprin
	Bufferin	Tylenol	Motrin-IB
	Ecotrin		Nuprin
	Empirin		
Reduces pain and fever	Yes	Yes	Yes
Reduces pain and fever	Yes	Yes	Yes
Side effects	Gastrointestinal (GI) bleeding stomach upset	None when taken as directed for short periods (days to weeks)	GI bleedin stomach upset, bloating and pain
Special caution	Don't take if you have allergy to aspirin asthma, bleeding disorder and ulcer	Overdoses can be toxic to the liver. Alcohol enhances toxic effects of high doses	Don't take you have allergy to aspirin, asthma, heart failure, kidney problems, ulcer
Children's use	Can cause Reyes	Available for children.	Available for childre

When used as directed, non-prescription analgesics usually do a remarkable job of relieving pain, fever or inflammation. But remember, pain is a symptom of an underlying problem. If your symptoms don't improve, contact your doctor.

Antacids and Indigestion Aids

Heartburn, indigestion, and sour stomach are a few of the many terms used to describe gastrointestinal distress. Self-treatment of indigestion is risky because it may cause a change from minor dietary difficulties to stomach cancer. Sometimes symptoms of heart disease coincide with indigestion. Although many people treat

^{*} **Reyes syndrome** is a disease of the brain with symptoms such as fever, vomiting, disorientation and coma (deep and often prolonged unconsciousness)

their own heartburn, they are better off seeking medical attention for symptoms that last longer than two weeks.

The goal of treatment is to prevent the production of stomach acid or to neutralize it. Antacids are neutralizing agents that help reduce the amount of acid produced in the stomach and prevent heartburn. Antacids, however, can interact with many different prescription drugs, so a pharmacist should be consulted about drug interactions before they are taken. Anyone who has heart trouble, hypertension, or kidney problems should consult a doctor before selecting an antacid.



Match the items in columns A and B. Draw lines to connect them.

A B

Paracetamol anti-diarrheal

Ibuprofen painkiller

Expectorant anti-heartburn

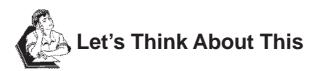
Antacid anti-fever

Loperamide anti-cough

Compare your answers with those in the *Answer Key* on page 41.

Here is a chart showing some known brand names of OTC and the particular illness that they are used for.

Brand Name	Contents	Illnes
Tempra/Tempra Forte	Paracetamol	Fever
Biogesic		
Cortal	Aspirin	
Decolgen	Chlorphenamine maleate, phenlypropanolamine HCl and paracetamol	Cold a
Decoril	Guiafenesin	Cough
Bonamine	Meclizine HCI	Nause (motic
Fil-bio Dextromethorphan	Dextromethorphan HBr	Dry, u
Flemonex	Guiafenesin (expectorant)	Wet c
Imodium	Loperamide HCI	Diarrh
Diatabs	Attapulgite	
Lomotil	Diphenoxylate HCl	



When was the last time you took prescription medicines? For what particular illness did you use it? Were you totally cured from your illness? Did you experience any side effects? Try to reflect on your answers to these questions. To know all about prescription medicines and how to use them correctly, read the next section.



Prescription Medicines

Prescription medicines require a written order form from a doctor, dentist or nurse practitioner. The order authorizes a pharmacist to give you a particular medicine. These are usually for the treatment of specific medical problems. Prescription medicines are more powerful and have more side effects than OTC drugs. Many can be habit-forming or unsafe.

Using Your Medicines Correctly

- ♦ Ask questions so that you understand how to take your medicine before leaving the doctor's office or pharmacy.
- Fill all medicine prescriptions promptly and renew them before they run out.
- ♦ Take all of your medicine doses on time. If you miss a dose, ask your doctor or pharmacist what to do.
- Report any side effects or reactions to your doctor immediately.
- Never stop taking a prescribed medicine for any length of time without asking your physician.
- ♦ Always discard outdated medicines.
- Don't take a larger or smaller dose of medicine than prescribed.
- ♦ Don't share your medicines or take medicines prescribed for others, no matter how similar your symptoms.
- ♦ Ask your pharmacist about ways to keep track of your medicines such as containers with sections for daily doses.
- Never use medicine from a package that shows signs of tampering, damage or imperfections.

Common Mistakes

Some examples of how people incorrectly take medicines include:

- Not getting the initial prescription filled or failing to refill when indicated.
- Under-dosing, such as taking less medicine than prescribed, or taking it less frequently, or skipping doses.
- Stopping a medicine too soon, for both long-term and short-term treatments, whether or not symptoms improve.
- Overusing medicines—taking too high a dose or taking doses too often.
- Taking doses of medicine at the wrong time of the day.

Modern medicines have great potential to improve health but to be effective, they must be taken—and taken correctly. People need to realize that taking prescription and non-prescription medicines properly is an important part of getting well—Dr. Raymond Woosley of Georgetown University Medical Center

Here is a list of prescription medicines for common illnesses.

Brand Name	Contents	Illnes	
Zamifen	Mefenamic acid	Relief	
Vamgesic		pain	
Coldrex	Paracetamol, phenylpropanolamine HCl, chlorphenamine maleate	Comr	
Colinol	Destromethorphan HBr	Contro assoc cold a	
Diaster	Loperamide HCI	Acute	
DLI-Loperamide			
Clovomet	Metoclopramide HCI	Nause	



How well do you understand and remember what we have discussed in this less

on?'	To find or	ut, answer the fol	llowing test.			
A.		ne blanks with the nside the box.	e correct answe	er. Choos	e your answers fro	om the
		Aspirin	Deconge	estant	Codeine	
		Painl	killer	Para	cetamol	
	paraceta	amol and aspirin other hand, large	. (1)	is	over the counter. I the safest painkil can cause r	ler of all.
	Cor used in		aining (3)		can cause cons	stipation if
		y, cold medicine	es are combina	tions of ((4)	and
B.	List dov	vn 5 anti-fever m	edicines.			
	1.					
	2.					
	3.					
	4.					
	5.					
C.		vn 5 prescription s that they are us		and name) and the respectiv	ve
		Medicine		Ι	llness	
	1					
	2					
	3					

Well, how did you fare in this test? To check if you did well, compare your answers with those in the *Answer Key* on pages 41–42.

If you got all the right answers, very good! If you made some mistakes, don't worry. Go back to the parts of this lesson that aren't clear to you.

Before you go to the last lesson of this module, read the summary below to help you remember the important points in this lesson.



Let's Remember

- Over-the-counter (OTC) medicines:
 - Can be bought without prescription;
 - Are intended for relief of minor ailments;
 - Are considered safe if warnings and directions are followed;
 - Can be harmful if misused.
- Prescription medicines require a written order form from a doctor, dentist or nurse practitioner before the medicine can be given by the pharmacist.
- ♦ Analgesics and anti-inflammatory drugs such as aspirin and acitaminophen are reasonably safe to take for short periods of time.
- ♦ Common colds are usually treated with drugs that combine painkiller and decongestant. But the most effective way of treating colds is taking lots of fluids, juices and rest.
- ♦ When your cough is dry and without sputum or phlegm, you must take a cough suppressant or antitussive. If your cough is with sputum, you are required to take expectorants.
- For pain, paracetamol is the safest pain reliever. Aspirin is also a good pain and ache reliever. However, it will also cause ulcer and stomach upset.

Taking the Correct Dosage of Medicines

In Lesson 2, you learned that dosage is a major factor to consider in taking medicines. The medicines that you take will not be effective or may worsen your condition, if not taken in its proper dosage. In this lesson, you will learn about the proper dosage of medicines used for common illnesses.

After completing this lesson, you should be able to:

- identify the correct dosage of a medicine by carefully reading product labels and prescription forms; and
- convert dosage of medicines from one unit to another.



Let's Study and Analyze

Desmund went home not feeling well. He had a slight fever and cough. After dinner with his family, he started to sneeze and have stuffy nose. His fever got worse. He took medicine for fever and colds from the cabinet without reading the label or the medicine bottle. Unfortunately, the dosage was far higher than that recommended on the medicine label. After a few minutes, small spots appeared all over his body and he started to chill. His wife Alyssa panicked after seeing the spots on his husband's body. Not knowing it was allergies, she applied ointment on it. Desmund's fever got even higher. Alyssa decided to bring him to the hospital.

In the hospital, the doctor found out that the medicine that Desmund had taken had expired. He experienced allergic reaction from the excess dosage. Desmund was lucky that he was immediately brought to the hospital and the doctor could treat his condition properly.

The doctor advised Alyssa not to use external medications on something that you are not sure of especially when it accompanies some other symptoms or illness.

The doctor gave Desmund the correct medication and dosage for his fever and allergies. With the proper medication Desmund should be able to avoid experiencing another illness such as the one caused by taking the wrong medicine.

Now answer the following questions.

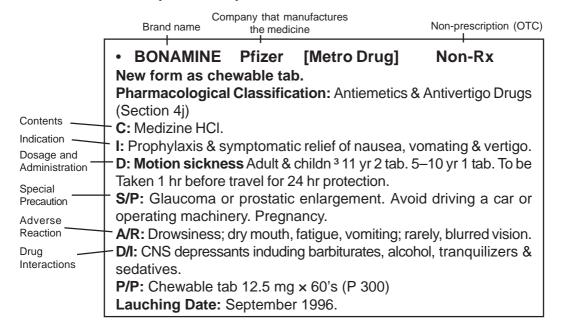
V	Vhat should he have done to avoid possible complications?
	Have you ever experienced taking the wrong medicine or dosage of a medicine? What happened?

Compare your answers with those in the *Answer Key* on page 42.

Read our next section to learn about taking correct dosage of medicines.



Dosage is a major factor in taking over-the-counter and prescription drugs. You can ask the pharmacist about the correct dosage of the medicine that you want to buy. Better yet, you can read the product's label carefully. Below is a sample label of an OTC medicine. Study it carefully.

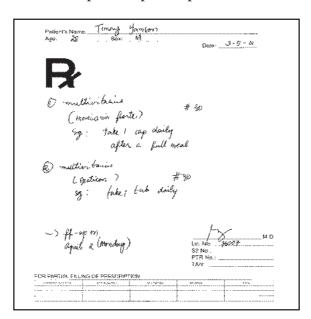


Take note of the following:

- 1. **Contents** refer to the active ingredient of the medicine. In this case, it is Meclizine HCl.
- 2. **Indication** refers to what illness or illnesses this medicine could be used for.
- 3. **Dosage and Administration** refers to the correct dosage and frequency that this medicine should be taken to achieve best results. In this case, Bonamine should be taken 1 hour before traveling for effects that will last for 24 hours. Bonamine is in tablet form, so the unit used for its dosage is **tablet**. For adults and children (11 years old and above), 2 tablets is the correct dosage. For children 10 years old and below, 1 tablet is enough.
- 4. **Special Precautions** are the conditions that you should avoid doing while taking this medicine. For example, you should avoid driving when you're taking this medicine. It could also refer to the conditions that you have that will make it inadvisable to take this medicine. In this case, if you are suffering from glaucoma or if you are pregnant, you should not take this medicine.
- 5. **Adverse Reactions** are the side effects that you are likely to experience when taking this medicine.
- 6. **Drug Interactions** are other drugs or substances that you should avoid taking when using this medicine. In this case, you should avoid taking barbiturates, alcohol, tranquilizers and sedatives.

You may also ask your family doctor or the medical staff in your health center about commonly used drugs available without prescription and their correct dosage.

Prescription medicines, on the other hand, include an authorized form signed by your doctor stating what medicine you should take and the correct dosage that it should be taken. Here is an example of a prescription form.



Prescription medicines also include important label instructions that must be followed carefully to ensure safe and effective use. Here is a sample label for a prescription medicine.

ZEPORIN Pharma Dynamic New cap strength. Pharmacological Classification: Cephalosporins (Section 7b). C: Cefalexin monohydrate. I: Infections of the resp, urinary tract, skin, otitis media & other infections due to sensitive organisms. D: Adult 250-500 mg 6 hrly. Childn 25-50 mg/kg body wt divided into 4 equal doses. C/I: Hypersensitivity to cephalosporins. S/P: Hypersensitivity to penicillins. A/R: Diarrhea, nausea, vomiting, dyspepsia, abdominal pain; allergic reactions. D/I: Aminoglycosides, potent diuretics, probenecid. P/P: Cap 500 mg x 100's (P1800). Launching Date: November 1996.

The good thing about these medicines is that they are taken under the guidance of a doctor. So, if some information on the label is not clear to you, you can always ask your doctor to explain them.



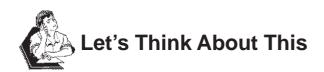
Let's Talk About This

Do you agree that sometimes, the label is not much help because instructions are not clear? What are some instructions indicated on labels that are not clear? Do you know any?

Clarify the following with your doctor before taking any medicine.

- Take as directed (what were the directions?)
- ♦ Take four times a day (around the clock or during waking hours?)
- ♦ Take as needed (what determines need?)
- ♦ Take two tablets daily (when? Morning or afternoon, one in the morning and one in the afternoon?)
- Take before bedtime (immediately before bed or 1-2 hours before?)
- Take before meals (immediately before meals or 1-2 hours before?)

So always remember to make sure that instructions are clear to you before you take any medicine.



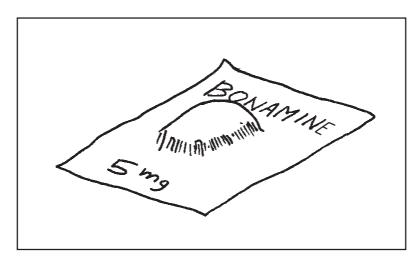
What did you notice about the dosage of the medicines indicated in our sample labels and prescription? If you answered that they were written in different units of measurement, you are correct. In the first example (label of Bonamine), the unit of measurement used is a tablet. A tablet (tab) is a compressed or molded block of a solid material. Other units of measurement for solid medicines include the following:

Capsule (cap) – powdered medicine is contained in an oblong shaped sac or shell

Gram (g) – unit of measurement in the metric system; 1,000 grams is equivalent to 1 kilogram

Milligram (mg) – 1 milligram is equivalent to 1,000 grams

You don't need to worry about the weight of each solid medicine. Indicated in the label of each product is its weight per tablet or capsule. Look at the example below.



Taking liquid medicine can be tricky, on the other hand. You have to measure the medicine before taking them. You also have to make sure that your measurement is accurate.

What are the units of measurement used in liquid medicines?

Let's see if you already have an idea in measuring liquid medicines. Answer the exercises on the next page.



Which of the following are usually used in measuring small quantities of liquid medicines? Put a check mark (4) before your chosen answer.

 millimeter
 milliliter
 ounce
 tablespoon
 gallon
 cup
teaspoon

Compare your answers with those in the *Answer Key* on page 42.



Let's Learn

Liter is the most common metric unit used to measure volume. However, milliliters are more commonly used for smaller quantities, such as in measuring medicines. When we measure **volume**, we measure the contents or amount that a container holds.

Here is a table listing the units of measurement for liquid medicines and their equivalents in other units.

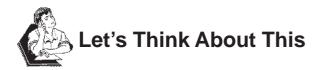
Unit of Volume	Equivale
1 teaspoon (tsp)	5 milliliters (ml)
1 tablespoon (tbsp)	15 milliliters
1 fluid ounce (fl.oz)	30 milliliters

Here is another table listing the units of measurement for liquids in bigger quantities.

1 liter (I)	1,000 milliliters
1 cup (c)	.24 liter (I) or 240 mi
1 pint (pt)	.47 liter or 470 millili
1 quart (qt)	.95 liter or 950 millili
1 gallon (gal)	3.8 liters

You can now use these tables in converting one measurement unit to another.

For more information regarding measuring units of volume, you may read the NFE A&E module entitled *Measuring Volume*.



What is the importance of knowing the unit of measurement used for liquid medicines and its equivalent units? If you answered, so that you will know how to measure liquid medicine from one unit to another, you are correct! To better illustrate this point, answer the exercises below.



Let us say that you need to give your brother his vitamins. The doctor's prescription tells you that you should give him 5 milliliters. But you don't have a measuring tool in milliliters. What will you do?



If you answered that you will use a teaspoon, you are correct! If you look at our first table, you will see that a teaspoon is equivalent to five milliliters. Knowing this, you can now give your brother one teaspoon of cough syrup, which is also equivalent to five milliliters.

But what if you need to give him 20 milliliters (20 ml)? How many teaspoons are there in 20 milliliters?

Follow these steps:

STEP 1

You need to convert 20 milliliters to its equivalent measure in teaspoons. What is the conversion factor from milliliters to teaspoons?

$$1 \text{ tsp} = 5 \text{ ml}$$

(A conversion factor is the value or ratio you must multiply to a number to change from unit of measurement to another.)

How do we express this in ratio form?

$$\frac{1 \text{ teaspoon}}{5 \text{ milliliters}} \text{ or } \frac{5 \text{ milliliters}}{1 \text{ teaspoon}}$$

In order to cancel the milliliter units, choose the ratio where the milliliter is in the denominator:

STEP 2

Multiply 20 milliliters with the conversion factor in Step 1. (This is called cross multiplication.)

$$20 \text{ m/s} \times \frac{1 \text{ tsp}}{5 \text{ m/s}} = \frac{20 \text{ tsp}}{5} = 4 \text{ tsp}$$

You should give your brother 4 teaspoons of his vitamins.



Let's See What You Have Learned

A. Study the label carefully, then answer the questions that follow.

• TEMPAIN Blooming Fields Non-Rx

New drops conc.

Pharmacological Classification: Analgesics & Antipyretics

(Section 4b)

C: Paracetamol

I: Pain & fever

D: Childn 1-3 yr 0.6-1.2 mL < 1 yr 0.6 mL. To be taken 1-4 times daily

S/P: Impaired kidney or liver functions. Avoid excessive use in patient with phenylketonuria.

A/R: Hematological, skin & other allergic reactions.

D/I: Alcohol, oral anticoagulants, chloramphenicol, aspirin, phenobarb,

liver enzyme inducers, hepatotoxic agents.

P/P: Drops 100 mg/mL × 15 mL. **Launching Date: January 1997.**

1. What is the brand name of the medicine?

	2.	Is it an OTC or prescription medicine?
	3.	What does it contain (contents)?
	4.	For what illness should it be taken?
	5.	What dosage should be given to a 3 year old child? How many times?
	6.	What drugs and substances should be avoided while taking this medicine?
	7.	What are the side effects of this medicine?
	8.	What special precaution should you take before taking this medicine?
В.	25 ı	nat if you don't have a measuring tool in milliliters and you need to take milliliters of vitamins, what will you use? What is its equivalent in this asuring unit? Show your computations. (2 points)

Well, how was it? Do you think you fared well? Compare your answers with those in the *Answer Key* on page 43. If you made some mistakes, review the parts of this lesson that you don't fully understand.



Let's Remember

In this lesson, you learned that taking the proper dosage of medicines is a major factor to consider in taking medicines. To make sure that the medicine you take will work effectively and will have no adverse reactions, take it in its proper dosage.

You also learned the unit of measurement of solid and liquid medicines; and how to convert from one unit to another using its conversion factor.

The unit of measurement of solid medicines, include:

- ♦ tablet
- ♦ capsule
- ♦ gram
- milligram

The unit of measurement of liquid medicines, include:

- milliliter
- ♦ teaspoon
- ♦ tablespoon
- ♦ fluid ounce



Let's Sum Up

In this module, you learned that identifying the symptoms of common illnesses is the first step in getting the most from your medicines. The common illnesses were discussed in this module include the following:

- common colds and influenza
- fever
- diarrhea
- constipation
- nausea and vomiting
- ♦ insomnia

After you have identified the illness based on its symptoms, you can now apply the proper treatment, such as drinking over-the-counter (OTC) and prescription medicines, drinking lots of liquids and getting some rest. Examples of OTC medicines include:

- paracetamol;
- antitussive for dry cough;
- expectorant for wet cough with phlegm;
- painkiller;
- ♦ decongestant;
- loperamide; and others.

Finally, to make sure that you will get the best from the medicine that you're taking, take it with its proper dosage. This way, you will also avoid the adverse reactions of taking the wrong dosage of medicines. To find out the proper dosage of medicines, read the label and prescription form carefully. You may also consult your doctor, dentist and the medical staff in your community health center.

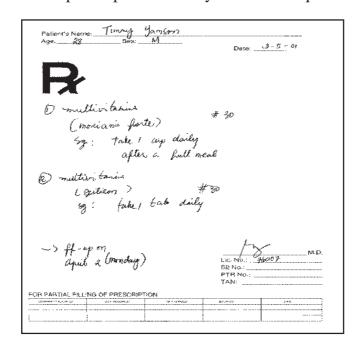


What Have You Learned?

A. List down 5 common illnesses, their symptoms and the OTC medicines that should be taken. (15 points)

Common illness	Symptoms	Appropriate OTC medicine to be taken

B. Read the doctor's prescription carefully. Answer the questions that follow.



1.	What are the name	s of the	medicines	prescribed	to the	patient?
- •	* * 11000 0010 0110 11001110	~ ~ ~ ~ ~ ~		Preserve en		P *******

a.	

2. What are the units of measurement used?

3. What are the proper dosages and administration of these medicines?

4. What questions should the patient ask regarding the dosages?

Compare your answers with those in the *Answer Key* on page 44.

If the number of correct answers you got is:

- 22–23 Very good! You have learned a lot from this module. You may proceed to the next one.
- 18–21 Good! Just go back and review the items that you answered incorrectly.
- 14–17 Review the parts of the module that are not clear to you.
- 0–13 You should review the whole module again.



A. Let's See What You Already Know (pages 2–3)

- A. You need not check all the medicines in the first column, just check those that you have used or are familiar with. Here is a sample answer. Your answer may be different, but the illness that they treat should be similar.
 - 1. **(c)** is the answer. Amoxicillin is used to treat **bacterial infections** or illnesses and diseases caused by bacteria.
 - 2. (i) is the answer. Bactidol is a cure for sore throat.
 - 3. **(g)** is the answer. Betadyne is a skin cleanser.
 - 4. (a) is the answer. Biogesic is used for headache, fever and pain.
 - 5. (e) is the answer. Bisolvon is a cure for dry cough.
 - 6. **(b)** is the answer. Diatabs is used to relieve diarrhea or loose bowel movement.
 - 7. **(h)** is the answer. Midol is a cure for dysmenorrhea or painful menstruation.
 - 8. (d) is the answer. Neozep is used to cure colds and flu.
 - 9. (j) is the answer. Ponstan is used for fever and muscle pain.
 - 10. **(f)** is the answer. Visine is used to relieve red, tired eyes.
- B. 1. cough
 - 2. fever
 - 3. flu
 - 4. headache
 - 5. diarrhea
 - 6. colds

B. Lesson 1

Let's Try This (pages 4–5)

- 1. c
- 2. a
- 3. f
- 4. e
- 5. b
- 6. g
- 7. d

Let's See What You Have Learned (pages 13–14)

- 1. (b) is the correct answer. **Constipation** is the common illness that is characterized by inconsistent bowel movement with hard and dry stools. Diarrhea (a) is loose bowel movement or excessive and frequent movement of watery feces. Insomnia (c) is the chronic inability to fall asleep or remain asleep for an adequate length of time. Influenza (d) or flu is a highly infectious disease characterized by headache, fever, sore throat and muscular aches and pains.
- 2. (a) is the correct answer. **Insomnia** is the inability to fall asleep, often leading to not feeling rested in the morning. Diarrhea (b) is loose bowel movement or excessive and frequent movement of watery feces. Fever (c) is a rise in the body's temperature above the normal level, which is 37°Celsius. Flu (d) or influenza is a highly infectious disease characterized by headache, fever, sore throat and muscular aches and pains.
- **3.** (c) is the correct answer. Stomachaches, frequent and watery stools and vomiting, characterize **diarrhea**. Constipation (a) that is characterized by inconsistent bowel movement with hard and dry stools. Fever (b) is characterized by a high body temperature, which is beyond the normal level. Flu (d) is characterized by headache, fever, sore throat and muscular aches and pains.
- **4. (b)** is the correct answer. **Coughing** is a natural reflex of the lungs to get rid of excess mucus. A cold (a) is a highly infectious illness characterized by sore throat, coughing, sneezing and a congested nose. Insomnia (c) is the inability to fall asleep or remain asleep for an adequate length of time. Influenza (d) is a highly infectious disease characterized by headache, fever, sore throat and muscular aches and pains.
- 5. (a) is the correct answer. An **antitussive** should be taken when you have a dry cough. It is capable of relieving or suppressing coughing. An expectorant (b) is a medicine that promotes or helps the removal of phlegm, mucus or other matter from the lungs. Loperamide (a) is used to relieve diarrhea. Lomotil (d) is a brand name of a medicine for diarrhea.
- 6. (a) is the correct answer. Fever is characterized by a high body temperature, headache, muscle pain, exhaustion and loss of appetite. Diarrhea (b) is characterized by loose bowel movement or excessive and frequent movement of watery feces. Nausea (c) is a feeling of sickness in the stomach characterized by the urge to vomit. Influenza (d)) is a highly infectious disease characterized by headache, fever, sore throat and muscular aches and pains.

- 7. (d) is the correct answer. The common cold is characterized by sneezing, watery eyes and hacking cough (a) and dry and scratchy throat and chills (b). Irregular bowel movement characterizes constipation.
- **8.** (a) is the correct answer. Nausea is characterized by **dizziness and vomiting**. A dry and scratchy throat (b) are some of the symptoms of the common cold. Frequent and watery stools (c) are some of the symptoms of diarrhea.
- **9. (c)** is the correct answer. An **expectorant** is <u>not</u> an antidiarrheal medicine. Loperamide (a), Lomotil (b) and bismuth subsalicylate (d) are medicines for diarrhea.
- **10.** (d) is the correct answer. A common cold may become severe and lead to **flu** (a), **influenza** (b) or **fever** (c).

C. Lesson 2

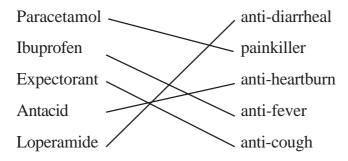
Let's Think About This (page 19)

These are sample answers only. Your answers may be different.

- 1. Biogesic, Diatabs, Alaxan, Neozep
- 2. They can be bought over-the-counter and they are cheaper than other medicines.
- 3. For fever, diarrhea, muscle pain and colds.
- 4. I once had an allergic reaction after drinking two tablets of alaxan.

 Then, I went to a dermatologist to have my allergies treated.

Let's Review (page 22)



Let's See What You Have Learned (page 25)

- A. 1. paracetamol
 - 2. aspirin
 - 3. codeine
 - 4. painkiller
 - 5. decongestant

- B. 1. aspirin
 - 2. acetaminopen
 - 3. ibuprofen
 - 4. naproxen
 - 5. ketaprofen
- C. Below are some sample answers.
 - 1. Zamifen mild to moderate pain
 - 2. Coldrex cold and flu
 - 3. Colinol cough
 - 4. Diaster diarrhea
 - 5. Clovomet nausea and vomiting

D. Lesson 3

Let's Study and Analyze (pages 27–28)

Your answers may be similar to these:

- 1. Desmund should have read the label of the medicine carefully before taking it.
- 2. Taking the right medicine with its proper dosage would not make his condition worse, like what he experienced.
- 3. I once took two tablets of alaxan, instead of one only. I developed some skin allergies because of this.

Let's Try Thi	s (page 32)
	millimeter
	milliliter
4	ounce
	tablespoon
	gallon
4	cup
	teaspoon

In measuring small quantities of liquid medicines, a tablespoon or a teaspoon is often used. These measuring units can be easily done at home and by anyone.

Let's See What You Have Learned (pages 34–35)

- A. 1. Tempain
 - 2. Over-the-counter (OTC)
 - 3. paracetamol
 - 4. pain and fever
 - 5. For 1-3 yr old child -0.6-1.2 ml
 - 6. Alcohol, oral anticoagulants, chloramphenicol, aspirin, phenobarb, liver enzyme inducers and hepatotoxic agents should be avoided.
 - 7. Side effects include hematological, skin and other allergic reactions.
 - 8. Those with impaired kidney or liver functions, especially those with phenlyketonuria, are not advised to take this medicine.
- B. I will use the unit measurement of a teaspoon as conversion factor.

STEP 1

$$1 \text{ tsp} = 5 \text{ ml}$$

This is how it is expressed in ratio form:

$$\frac{1 \text{ tsp}}{5 \text{ ml}} \text{ or } \frac{1 \text{ ml}}{1 \text{ tsp}}$$

STEP 2

$$25xn1 \times \frac{1 \text{ tsp}}{5 \text{ mil}} = \frac{25 \text{ tsp}}{5} = 5 \text{ tsp}$$

I will take 5 teaspoons of vitamins

E. What Have You Learned? (pages 37–38)

A. Compare your answer from this chart.

Common illness	Symptoms	Medic
Common colds	Fever, runny and stuffy nose, dry and scratch throat and chills.	Comb and de
Diarrhea	Frequent and watery stool	Lopera others
Flu	Moderate to severe fever, headache and fatigue	Parace Destro others
Cough	Excess secretion of mucus leading to irritation in the throat	Antitus expec with pl
Fever	High body temperature, body pain, exhaustion and loss of appetite	Parac
Constipation	Inconsistent and difficult bowel movement	Take ¡
Insomnia	Inability to fall asleep or stay asleep	
Nausea and vomiting	Motion sickness, diziness	Bonar

- B. 1. a. Moriamin Forte
 - b. Zesticon
 - 2. a. capsule
 - b. tablet
 - 3. a. 1 capsule daily after a full meal
 - b. 1 tablet daily
 - 4. a. At what time of the day should I take the medicines?
 - b. Should I take it/them immediately after eating my meal?



Antitussive A cough suppressant

Capsule A sac or shell covering of a solid medicine, which is also used as its unit measurement

Dosage The measured amount or quantity of medicine or any therapeutic agent

Diarrhea An illness characterized by frequent and watery stool

Expectorant A medicine that promotes the expulsion of mucus from the respiratory tract

Glaucoma A disease of the eye marked by increased pressure within the eyeball that can result in damage to the optic disk and gradual loss of vision Influenza

Insomnia An illness marked by a person's inability to fall or stay asleep

Milliliter Unit of measurement in the metric system used to measure liquid in smaller quantities

Over-dosage Taking more than or more frequently the suggested or prescribed dosage

Under-dossage Taking less than or less frequently the medicine as prescribed or suggested

Over-the-counter medicine Medicine that is readily available at counters in drug stores and convenience stores

Prescription medicine Medicine that can be bought only when authorized by a doctor

Sputum Phlegm; discharge from the respiratory passage

Precuation A measure taken beforehand to prevent harm and secure good

Volume The content or amount that a container holds



- Loke, Edna and Angelina Wee, Ed. *MIMS Philippines*. vol. 26 no. 1. Philippines: Media, 1997.
- Canadian Centre for Occupational Health and Safety. Common Cold. http://www.ccohs.ca/oshanswers/deases/common_cold.html> May 8, 2001, date accessed.
- Health World Online. Childhood iarrhea. http://www.healthy.net/asp/templates/article.asp?PageType=Article&id=352> May 8, 2001, date accessed.
- U.S. Food and drug Administration. FDA's for taking Medicines. http://www.fda.gov/opacom/catalog/medtips.html> May 8, 2001, date accessed.