

Chapter 11

PHARMACY

TASK 1 What are the main duties and responsibilities of a pharmacist? Try to list as many as you can. You can use any of the following words.

drugs / medicines / medications	prescription-only-medicines	dosage
advise on	medicinal products	pharmacotherapy
sell	decode	health-care team
dispense	give instructions	precautions to take
prepare	side effects	patients / customers
prescriptions	drug administration	knowledge
OTC drugs	interactions	research

TASK 2 Have a look at the following pictures. What would you call the following places where a pharmacist works?



TASK 3 Think of some of the responsibilities of people working in these places.

COMMUNITY PHARMACY	HOSPITAL PHARMACY	PHARMACEUTICAL COMPANY

PERSONAL QUALITIES

TASK 4 Choose the words from the list below to complete the definitions.

arrogant	lazy	honest	good communicator	easy-going
absent-minded	friendly	cautious	motivated	diligent
careful	unreliable	thoughtless	competitive	
compassionate	hard-working	well-educated	self-confident	
considerate	irresponsible	indecisive	selfish	

1. If you are, you are careful and persevering in carrying out tasks or duties.
2. A person tries to share the suffering of other people.
3. If you are, you are characterized by a lack of decision and firmness.
4. If someone is they have or show determination and an energetic pursuit of their goals, enjoying rivalry with others.
5. A person shows careful forethought.
6. Being means being thoughtful towards other people; kind.
7. people live without undue worry or concern, and are calm.
8. If you are, then you are sure of yourself.

TASK 5 Pair work. How would you characterize a good pharmacist? Do the qualities change for pharmacists working in different places?

LANGUAGE FUNCTIONS – Uncountable nouns

An uncountable noun refers to something that can't be counted, because it's thought of as a whole that can't be cut into parts. They are often abstract, and occasionally have a collective meaning. (for example, food – *Is the food ready now?*) These nouns take only the singular form.

An easy way to identify uncountable nouns is by category. This is only a partial list – can you add some more nouns to each category?

1. Things made up of many small pieces: *sand, salt, powder, dust,*
2. Wholes composed of individual parts: *food, equipment, garbage,*
3. Fields of study and professional fields: *biology, law, medicine, research,*
4. Abstract ideas: *advice, knowledge, experience,*
5. Liquids: *saliva, blood, syrup,*
6. Gases: *oxygen, helium, carbon dioxide,*
7. Substances: *wool, ice, silver, coal, cloth,*
8. Natural phenomena: *rain, fog, snow,*

It is possible to use various quantity expressions in order to refer to plural concepts. Some of these are: **some** / **any**, **a piece of**, **a slice of**, **a glass of**, **a chunk of**, etc.

When you want to refer to a small / large quantity of something, you use **a little** / **much** for uncountable nouns and **a few** / **many** for countable ones.

TASK 6 Find the mistakes in the following sentences and correct them.

1. Dr. Smith doesn't like a black coffee. He usually drinks it with one sugar and milks.
2. Good morning. Could you give me an advice on how to use this drug?
3. The receptionist at the front desk gave me two informations.
4. Just a little friends came to visit him in hospital.
5. How many money have you got in the bank?
6. The scientists prepared two researches on the role of a copper in the human body.
7. The news are bad. He's not going to recover from this disease.
8. We have a few knowledge of this phenomenon.
9. A: Is there a syrup in this bottle? B: Yes, there's a few.
10. He hasn't got many experiences as a pharmacist.

DRUGS – IMPORTANT TERMS

TASK 7 Match the terms below with their definitions.

prescription / Rx / legend	therapeutic indications	side effects / adverse drug
drugs	posology / dosage regimen	events / adverse drug
OTC drugs	discontinuation	reactions / unwanted effects
generic drugs	contraindication	pharmacology
dosage form / formulation	drug interactions	concentration
route of administration	placebo	

1	The system of drug dosage, i.e. the dose and how many times a day the drug should be taken, if it can be taken with or without food, or on an empty stomach.	
2	A drug available under medical supervision, only when recommended by a doctor.	
3	A simulated or otherwise medically ineffectual treatment for a disease or other medical condition intended to deceive the recipient.	
4	The science of drugs and their clinical use, whose main objective is to promote the safety of prescribing, maximise drug effects and minimise side effects. It analyzes the breakdown and synthesis, biological activity, biological effects, and delivery of drugs.	

5	Conditions and diseases in which the drug may be used.	
6	The way in which a drug changes the effects of other substances ingested by a patient (drug-drug, drug-food).	
7	A drug sold without a prescription.	
8	Conditions and situations in which a given drug cannot be used.	
9	The amount of drug in a given volume of plasma (e.g. number of micrograms per milliliter).	
10	A drug that contains the same active ingredients as the original formulation, but sold under its chemical name without advertising.	
11	Unwanted, unpleasant, noxious or potentially harmful reactions evoked by a drug.	
12	The form in which the drug is given (e.g. tablet, capsule).	
13	The path by which a drug, fluid, poison, or other substance is taken into the body.	
14	Stopping the drug intake.	

TASK 8 A complete drug product needs to contain important information for patients.

Complete the short information below with the following words:

medication, prescribing, insert, leaflet

A package or information (US) or patient information (Europe) is a document provided along with a prescription to provide additional information about that drug.

TASK 9 What information is usually found in the drug leaflet? Complete the sentences. You can use some terms from the table above.

1. Clinical _ H _ _ _ _ C _ _ _ G _ - gives information concerning the way in which the medicine works in the body, how it is _ B _ _ _ B _ _ and eliminated, and what its effects may be at various _ _ N _ _ _ T _ _ _ _ _ S. This section may also contain results of various clinical _ R _ _ _ _ (studies) and / or describe the effects of the medication on various populations (e.g. children, women, etc.).
2. _ _ D _ _ _ T _ _ _ _ and usage - states uses for which the drug has been FDA-approved (e.g. stomach cramps, back pain, oesophageal reflux). Physicians are entitled to and often _ _ E _ _ _ _ _ medicines for other indications, not listed here (so-called "off-label uses").
3. _ _ _ _ T _ _ _ N _ _ _ A _ _ _ _ S - describes situations in which the medication should not be used, for example in patients with other medical conditions, such as allergy or kidney failure.

4. _ A _ _ _ N _ _ - explains possible serious adverse
_ _ _ E _ _ _ that may occur while taking the drug.
5. P _ _ _ _ U _ _ _ _ (safety measures) - tells the patient how to
use the medication safely including physical impairments and drug
_ _ T _ _ _ _ O _ _ ; for example “One should not take tetracyclines
while taking this drug” or “May impair the ability to drive vehicles and
operate mechanical devices”.
6. _ _ V _ _ _ _ reactions - gives the list of all side effects observed in all
the clinical trials of the medicines (not only the most common ones -
these are listed separately in the “Warnings” section).
7. Drug _ B _ _ _ and dependence - provides information regarding
whether _ _ _ L _ _ _ _ D (chronic) use of the medication can cause
physical dependence.
8. O _ _ _ D _ _ _ _ E - gives the potential effects of an overdose and
informs the patient what to do in case of a suspected overdose.
9. Dosage and _ M _ _ _ _ T _ _ _ _ N - provides a list of recommended
dosage, often different for adults, children, pregnant women or the
elderly, if different doses are necessary.
10. How S _ _ _ L _ _ _ - describes the physical features of the medication,
such as its dosage form (tablets, pills, capsules etc.), colour, shape,
adjuvants, and storage information (like “Store at room temperature”).

TASK 10 Unscramble the following sentences that are often found on the drug package inserts and then try to place them in the correct category from the previous task.

1. not / stated / dose / do / exceed
.....
2. pregnant / contraindicated / drug / women / in / this / is
.....
3. consult / doctor / symptoms / persist / if / your
.....
4. of / keep / children / out / of / reach
.....
5. two / take / times / may / daily / adults / up / to / tablets / four
.....
6. burn / even / do / empty / puncture / not / when / or
.....
7. light / humidity / from / protect / and
.....
8. first / cold / of / take / the / pill / sign / flu / or / this / at
.....
9. children / recommended / in / divided / the / doses / treatment / are / of
.....
10. dry / store / in / cool / a / place / and
.....

DOSAGE FORMS OF DRUGS

TASK 11 Label the following drug formulations in the pictures? Choose from the following:

AEROSOL

CAPLET

DUSTING POWDER

EYE DROPS

GARGLE / MOUTHWASH

INHALATIONS

INJECTIONS

LOZENGES

OINTMENT

PILLS

SUPPOSITORY

SUSPENSION

SYRUP

TABLET

TINCTURE

TRANSDERMAL PATCH

VAGINAL RING

CAPSULES



TASK 14 Group work. Think about the advantages and disadvantages of various routes of administration. Take the following aspects into consideration:

- convenience for the patient (if the patient can take the drug on his / her own),
- rate of delivery (which is faster / slower / more rapid)
- other conditions that the patient might be suffering from
- physiological factors, such as the action of digestive juices
- the place of delivery (is the action of the drug systemic or local)

TYPES OF DRUGS

TASK 15 Many names of drugs are formed using the prefix “anti-“. Try to use the following medical terms to figure out the names of medicines built from them.

PYREXIA – fever

drugs to fight high fever – ANTI _____ CS

EMESIS – vomiting

drugs to suppress vomiting – ANTI _____ CS

TUSSIS – cough

drugs to stop coughing – ANTI _____ VES

DEPRESSION

drugs to alleviate depression – ANTI _____ ANTS

COAGULATION – clotting

drugs to stop clotting – ANTI _____ ANTS

TASK 16 Can you think of the origin of the following:

antipsychotics, anticonvulsants, anticholinergics, antihypertensives?

Other common types of drugs: analgesics, antibiotics, hypnotics, tranquilizers / sedatives, expectorants, laxatives / aperients, antacids, nasal decongestants, bronchodilators, contraceptives

TASK 17 Which of these drugs have been prescribed to these patients?

1. Mary: “For the past 3 months, I’ve had a stuffy nose that just won’t go away. What should I do?”
2. Peter: “How do I bring up phlegm and not make it hurt as much?”
3. Wendy: “I feel like I am close to having a nervous breakdown. I am a bundle of nerves!”
4. Joanna: “My baby boy has got a strep throat.”
5. Max: “For the past couple of weeks, I have been experiencing very painful, throbbing headaches in the back of my head just above my neck.”

6. Jerry: "I have some stomach issues that are driving me crazy! I stay constipated.... like 5 to 9 days."
7. Julia: "All of a sudden, my chest gets tight, I can't breathe and the wheezing is so awful."
8. Tom: "I do not know why, but I get heartburn every day at least once or twice."
9. Linda: "I can't sleep at night. What should I do?"
10. Gina: "My daughter's just 18. I don't want her to get up the duff!"

TASK 18 Complete the gaps with the correct names of drug types.

1. Broad spectrum are effective against a wide range of bacteria.
2. Some mood-lifting, such as Xanax, have been known to be addictive.
3. are used to treat motion sickness and can be taken by people who feel sick when travelling by bus or car.
4. Aspirin is a common used to reduce mild fever and can also be taken to relieve headache as it is also an
5. Some come in the form of a spray or in a container with a special inhaler.
6. Some are used to treat hypertension, they decrease the amount of fluid flowing through blood vessels, which reduces pressure on the walls of the arteries.
7. Some are used as medication for thrombotic disorders.
8. Hormonal are said to be one of the most effective birth control methods.
9. This syrup is an effective cough medicine or
10. The patient was very nervous and agitated and was administered a mild

THE EFFECTS OF DRUGS

TASK 19 Match the verbs from the left circle with the nouns from the right one.
Sometimes there is more than one option. How many pairs can you make?

<p style="text-align: center;">combat</p> <p style="text-align: center;">cure decrease increase</p> <p style="text-align: center;">relieve reduce induce produce</p> <p style="text-align: center;">mitigate fight treat prevent inhibit</p> <p style="text-align: center;">stimulate activate suppress</p> <p style="text-align: center;">alleviate restore soothe</p> <p style="text-align: center;">promote neutralize</p>	<p style="text-align: center;">disease</p> <p style="text-align: center;">illness symptoms</p> <p style="text-align: center;">nausea fever pain infection</p> <p style="text-align: center;">action health discomfort</p> <p style="text-align: center;">inflammation heart rate side effects</p> <p style="text-align: center;">coughing acidity bacteria</p> <p style="text-align: center;">appetite anxiety</p> <p style="text-align: center;">bowel movements sweating</p> <p style="text-align: center;">vomiting sleep</p>
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INSTRUCTIONS FOR DRUG TAKING

TASK 20 Complete the instructions with the following verbs.

dissolve	apply	dilute	take	drink	shake	insert	chew
melt	sprinkle	rinse	swallow	rub	inhale	put	dip
sip	mix	wear	instill	stick			

1. one suppository into the rectum as required.
2. one tablet every four hours.
3. Let the lozenge slowly in your mouth.
4. Don't these tablets, them whole.
5. the bottle well before taking the drops.
6. five drops into the inflamed eye.
7. the ointment onto the cleansed skin and in gently.
8. the powder in a glass of warm water and it slowly.
9. Put 30 drops into a glass of water and your mouth.
10. the powder onto the wound.
11. two tablespoonfuls of the suspension with water and on an empty stomach.
12. You should the patch on your arm or back.
13. one tablespoonful in a litre of hot water and the steam.
14. the strip in the urine and observe the colour.
15. 2 drops of the medication into the infected ear.

MEDICINAL PLANTS

TASK 21 Can you name the following plants? Choose from the following:

NETTLE
PANSY
ELDER

ST. JOHN'S WORT
CHAMOMILE
LIME (BrE) / LINDEN (AmE)

PLAINTAIN (PLANTAGO)
MINT
YARROW

a



b



c



d



e



g



f



h



i



TASK 22 Find a plant which:

1. is astringent, anti-inflammatory, can be used for minor sores and boils; internally, may be used to treat coughs
2. its flowers are used for colds, cough, fever and inflammation
3. is reported to relieve anxiety and tension and to act as an antidepressant
4. may have an effect in treating the flu, alleviating allergies, and boosting overall respiratory health
5. soothes nausea, vomiting, abdominal pain, indigestion, irritable bowel, and bloating
6. a mild, relaxing sleep aid, treatment for fevers, colds, stomach ailments, and an anti-inflammatory herb
7. is used to treat allergy symptoms, reduces inflammation and is slightly diuretic
8. is used topically for wounds, cuts and abrasions since it may stop bleeding
9. is an anti-inflammatory expectorant and cures skin disorders

OTHER PRODUCTS SOLD IN THE PHARMACY

TASK 23 Label the following objects.

ADHESIVE PLASTER

BANDAGE

CATHETER

COTTON WOOL

DENTAL FLOSS

DISPOSABLE GLOVES

DUMMY / PACIFIER

FACE CREAM

GAUZE SWABS

GLUCOMETER

INFANT FORMULA

NAPPIES / DIAPERS

NEBULIZER

PEAK FLOW METER

PREGNANCY TEST

STERILE GAUZE

SYRINGES AND NEEDLES

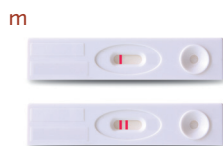
TEAT

THERMOMETER

TOOTHBRUSH

TOOTHPASTE

URINE SAMPLE POT



DANGEROUS FOOD-DRUG INTERACTIONS

TASK 24 Are the following sentences true or false? Read the text and find out.

1. The adverse reactions caused by statins can be exacerbated by eating all kinds of citrus fruit.
2. On no account should older people combine analgesics and alcohol.
3. Vitamin K interferes with the anticoagulant action of warfarin.
4. Antibiotics should only be taken before meals.
5. If one's diet is rich in iodine, lower doses of antithyroid drugs are recommended.
6. Drinking alcohol when taking medicines for diabetes can increase the blood sugar level.
7. Eating grapefruit is contraindicated when taking statins, but not calcium channel blockers.
8. Green vegetables are abundant in vitamin K.

1. Warfarin and Vitamin K

Warfarin is a **blood-thinning medication** that helps treat and prevent blood clots. Eating certain foods, especially those rich in vitamin K, can **diminish** warfarin's effectiveness. The highest concentrations of vitamin K are found in green leafy vegetables such as kale, spinach, Brussels sprouts, broccoli, asparagus, and endive.

2. Insulin, Oral Diabetic Agents, and Alcohol

An alcoholic drink can increase or prolong the effects of insulin or oral diabetic agents (pills) and thus lead to **hypoglycemia**. The glucose-lowering action of alcohol can last as long as eight to 12 hours. Symptoms of hypoglycemia include nervousness, sweating, **trembling**, intense hunger, weakness, palpitations, confusion, **drowsiness**, and ultimately coma.

3. Statins and Grapefruit

Statins are highly **effective** cholesterol-lowering drugs. Unfortunately, says Joel Zive, PharmD, vice president of Zive Pharmacy & Surgical, Inc in Bronx, NY, and a **spokesman** for the American Pharmacists Association, "Drinking grapefruit juice or eating fresh grapefruit can increase the amount of some statins in your blood and lead to potentially greater side effects of these drugs."

4. Calcium Channel Blockers and Grapefruit

Calcium channel blockers are prescribed for high blood pressure. A natural element found in grapefruit **latches onto** the intestinal enzyme called CYP3A4, which **alters** the **breakdown** of the calcium channel blockers, possibly resulting in excessively high blood levels of the drug, along with an increased risk of serious side effects.

5. Acetaminophen and Alcohol

The over-the-counter **pain reliever** acetaminophen (Tylenol) and alcohol don't mix. "Two or more alcoholic drinks per day can increase the liver toxicity of Tylenol," says Zive. "This toxicity can happen even if a patient takes less than the maximum 4 grams, or eight tablets, of Tylenol per day. "This interaction can be especially problematic in older adults", says Zive, "since the liver's ability to diminish drugs decreases with age."

6. Antibiotics and Dairy Products

Dairy products such as milk, yogurt, and cheese can delay or prevent the absorption of antibiotics such as tetracyclines and ciprofloxacin (Cipro). This occurs because the calcium in such foods binds to the antibiotics in the stomach and upper small intestine to form an insoluble compound. To avoid problems, Zive recommends taking an antibiotic one hour before or two hours after a meal.

7. Antithyroid Drugs and Iodine-Rich Foods

Antithyroid drugs are compounds that **interfere with** the body's production of thyroid hormones, thereby reducing the symptoms of **hyperthyroidism**. Antithyroid drugs work by preventing iodine absorption in the stomach. A high-iodine diet requires higher doses of antithyroid drugs. The higher the dose of antithyroid drugs, the greater the **incidence** of side effects that include rashes, **hives**, and liver disease.

TASK 25 Read the article again and match the bolded words with their synonyms given below.

1. analgesic
2. anticoagulants
3. attenuate
4. capacity
5. disintegration
6. fasten to
7. lethargy
8. low blood sugar level
9. meddle with
10. modify
11. occurrence
12. overactive thyroid gland
13. potent
14. representative
15. tremor
16. urticaria

LANGUAGE FUNCTIONS – Reported speech – Introductory verbs

When we report someone's words, we interpret what we hear, so we use appropriate reporting verbs.

- **verb + to + infinitive**

agree, claim, demand, offer, promise, refuse, threaten, e.g.

"I must see the doctor at once!" the patient said. The patient demanded to see the doctor immediately.

- **someone + to + infinitive**

advise, allow, ask, beg, command, forbid, invite, order, remind, warn, e.g.

"Don't take these tablets on an empty stomach," he said. He warned me not to take these tablets on an empty stomach.

- **+ ing form (gerund)**

accuse sb of, admit to, apologise for, boast about / of, complain of, deny, insist on, suggest, explain to sb how, e.g.

"I didn't drink this syrup," she said. She denied drinking / having drunk the syrup.

- **+ that + clause**

explain, inform sb, exclaim / remark, e.g.

"What beautiful teeth!" said the dentist. The dentist exclaimed that these were beautiful teeth.

TASK 26 Change the following sentences into reported speech, using the given introductory verb.

1. "You mustn't take painkillers and drink alcohol at the same time," the pharmacist said.

FORBID

2. "Don't chew these tablets," she told me.

WARN

3. "You sold the wrong medication to Mr. Brown," said the pharmacy manager.

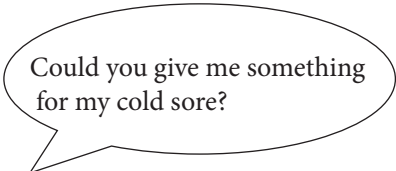
ACCUSE

4. "You should cut down on alcohol, now that you're taking insulin," the doctor said.

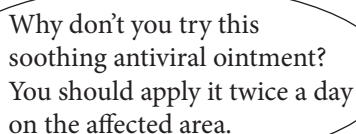
ADVISE

5. "Why don't you see your doctor about this glue ear?" he said.
SUGGEST
6. "You can buy dummies in different shapes here," the pharmacist said.
INFORM
7. "Yes, I'll put your son on a course of antibiotics," the doctor said.
AGREE
8. "Please, please, doctor, help my son!" she screamed.
BEG
9. "I have a lot of problems with my varicose veins," he said.
COMPLAIN
10. "Drink this linden tea twice a day," the doctor said.
ORDER

PHARMACY SCENES



Could you give me something for my cold sore?



Why don't you try this soothing antiviral ointment? You should apply it twice a day on the affected area.

TASK 27 Recommend a good remedy or give some good advice for the following problems.

1. My son's been stung by a wasp. Can you recommend something to help him?
2. I need to disinfect and dress a wound. What would you suggest?
3. I've been prescribed these tablets, but I have problems swallowing.
4. Could you give me something for my cough?
5. My daughter has a stomach upset, but I don't want to give her any drugs. Could you recommend some herbal remedy?
6. The doctor prescribed me these ear drops. How do I use them?
7. Is there anything I have to avoid when taking this antibiotic?
8. What does it mean that this drug is an expectorant?
9. I've been having some morning sickness for a few days. Can you recommend something for that?
10. My husband's got a bad cold, temperature and a runny nose. What can I give him?
11. My voice has become hoarse. Can you help?

12. My little daughter has a high temperature and she vomits from time to time.
13. Do I have to take this medicine before or after meals?
14. I've scalded my hand with hot water and now it hurts me.
15. My wife has got terrible back pain and she's got problems getting up. Can you recommend something before she sees her GP?
16. I've been ordered to do a urine test, what should I do?
17. I've been feeling a bit downcast recently, but I don't want to go to see my doctor yet. Could you give me some advice what to do?
18. I'm afraid I've twisted my ankle. What should I apply?
19. Could you recommend something for hives?
20. I take insulin injections for my diabetes. Can I drink some wine with friends this evening?