МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ МЕДИЧНИЙ УРНІВЕРСИТЕТ

Практикум з англійської мови для студентів-медиків

(частина II)

Харків 2015

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Затверджено Вченою Радою ХНМУ
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Unit 18

GRAMMAR REVISION: SHOULD, HAVE TO, MUST

Test your grammar (to be done before the class).

Use the proper verb:
1. I think you (should, must, have to) go to the doctor. 2. We (should, must, have to) to take our tickets. 3. In my opinion you (should, must, have to) take more exercise. 4. Schoolchildren (should, must, have to) wear a uniform. 5. We (should, must, have to) arrive before 9.00. 6. You (should, must, have to) eat fruit every day. 7. You (should, must, have to) wear a warm coat. 8. We (should, must, have to) learn Latin. 9. When the lights are red, you (should, must, have to) stop. 10. You are always late. You (should, must, have to) leave home earlier. 11. I (should, must, have to) leave now. I don't want to be late.

Correct the mistakes (one in each sentence):
12. Students shouldn't smoke in the university campus. 13. I has to get up early tomorrow. 14. Have you to wear a uniform? 15. You must to give me your homework. 15. You should no drink alcohol. 16. Kate have to take an exam tomorrow. 17. Jim has not to get up early. 18. I think you have to go to the gym. 19. She didn't must to go. 20. He had not to look after the baby.

Use the keys to check your test:
1. should, 2. Must, 3. Should, 4. Have to, 5. Have to, 6. Should, 7. Should, 8. Have to, 9. Have to, 10. Should, 11. Must. 12. Students ~~shouldn't smoke~~ … mustn't smoke... 13.I ~~has~~ to … I have to… 14. ~~Have you~~ to wear … Do you have … 15. You must ~~to~~ give ... 15. You should ~~no~~ … You should not 16. Kate ~~have~~ to … Kate has to... 17. Jim ~~has not~~ to … Jim does not have … 18. I think you ~~have to~~ go … I think you should go … 19. She didn't ~~must~~ go… She didn't have to … 20. He ~~had not~~ to … He did not have to …

If your score is 18 or less revise the grammar using any grammar book.

KEY WORDS

Abundant – existing or available in large quantities
Advantage – a good or useful quality or condition that something has
Comply - to do what you have to do or are asked to do
Consume (v) – to use time, energy, goods, etc.
Emphasize (v) – to give special or additional importance to something
Enhance (v) - improve something
Goal – something you hope to achieve in future
Intake – the amount of food, drink that you take into your body
Modest – not very big, expensive
Refine (v) – to make a substance pure using an industrial process
Restrict (v) – to limit or control the size, amount or range of something
Sodium -
Supplant (v) – to take a place of a person or a thing so that they are no longer used

Weight – how heavy something is

Language of Medicine: HEALTHY LIFESTYLE

What is it necessary to do to be healthy?
Which habits are healthy? Which are not?
What foods do you like?
How many meals a day do you have?
Do you believe your eating habits to be healthy?
Are there things which should be changed?
What should be changed?

(Check your answers after reading the text).

1. Sort the foods according to the categories:

Diary products

Cereals

Sweets

Vegetables

Fruit

Meat & Poultry

Beans & Legumes

Fish

Fats

Apples, bananas, beans, bread, butter, cabbages, cake, candies, carrots, cheese, chicken, chips, chocolate, cookies, cream, crisps, cucumbers, duck, fudge, goose, grapes, ham, hamburger, ice-cream, lamb, margarine, mushrooms, milk, nuts, oil, onions, oranges, pasta, peas, pizza, pork, potatoes, rice, salmon, sandwich, sausage, spaghetti, strawberries, tomatoes, yoghurt.

2. Mark healthy and unhealthy foods.

3. Read the text and make captions for the nutritional pyramid:

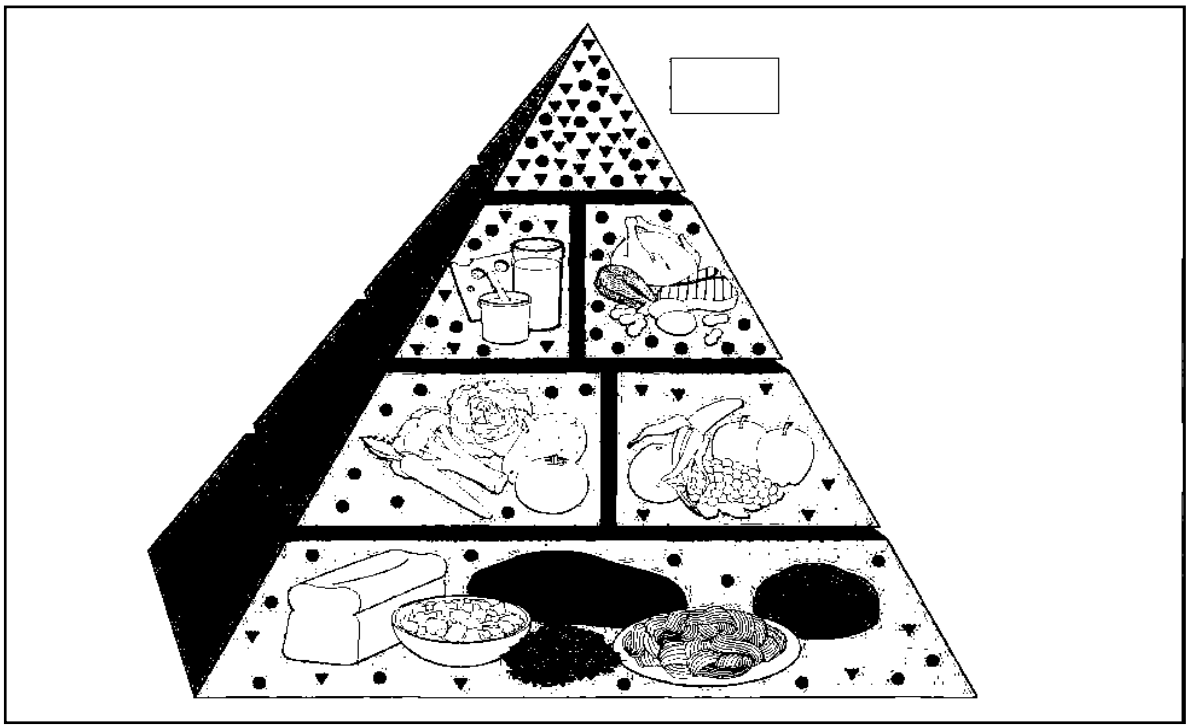
The goal of maintaining and promoting health is achieved by exercising regularly, eating appropriately sized portions of food, limiting the intake of fat, and eating an abundant amount of whole grains, vegetables, and fruits.

The individual disease-preventing diets, which were recommended in the past, have largely been supplanted by one health-promoting diet designed to prevent multiple diseases by enhancing health.

The recommended diet is schematically represented by the food pyramid. Cereal grains are the foundation of the health-promoting diet. Vegetables and fruits should be consumed in variety and abundance, with a total of five servings of these items a day representing the minimal recommendation. The consumption of fat-restricted (or, preferably, fat-free) dairy products is advisable to increase calcium intake; the intake of full-fat dairy products should be restricted. Items in the meat and fish group should generally be eaten as peripherals to vegetable-based meals. Poultry should be eaten without skin, with white meat consumed preferentially. The intake of red meat should generally be limited and lean cuts selected. The advantages of fish consumption should be emphasized. Fatty, dark-meat fish, such as salmon, is particularly rich in omega-3 fatty acids. Beans and legumes are a good source of protein and should be eaten regularly as an alternative to meat. A variety of seeds and nuts should be consumed, but they should be eaten in modest quantities because of their caloric density. Highly refined foods, sweets, and oils should be used sparingly.

The guidelines call for 30% or less of total calories from fat, 55-60% from carbohydrates, and 10-15% from proteins. Total calorie consumption should be limited to the amount required to maintain a healthful body weight. At least 30 g of dietary fiber should be consumed daily, achieved by abundant intake of grains, beans, fruits, and vegetables. Sodium intake should be restricted to not more than 3 g/d, a figure supported by recommendations to eat processed foods sparingly. Alcohol consumption should be modest, with ethanol levels not exceeding 15 g/d for women or 30 g/d for men.

(From *EPIDEMIOLOGY, BIOSTATISTICS, AND PREVENTIVE MEDICINE*)



3. According to the text what should be eaten in large amounts, limited amounts, restricted?

4. Rearrange the sentences to make them true:

- Exercise and proper eating habits / should be eaten in small amounts.

- The food pyramid / dairy products with low amount of fat.

- You are advised to take / more healthy then red meat.

- It's better to eat / the foundation of the diet.

- Meat should not be / from beans.

- White meat is / an illustration of a new health-promoting diet.

- Proteins can be taken / at least 5 servings of fruit and vegetables a day.

- Foods containing sugar / can enhance health.

5. Work in pairs. Express your agreement or disagreement. Give the right version (Use: ***As far as I know…, Is it true that…, Do I understand correctly that …*** *for suppositions).*

a) Diet is what you need to be healthy.
b) There are a variety of healthy-promoting diets.
c) Cereal grain should constitute the major part of the diet.
d) Milk with large amount of fat is not healthy.
e) Beans can substitute meat in the diet.
f) Nuts are good for health but they contain a lot of calories.
g) Ice-cream should be the foundation of a healthy diet.
h) Grains, beans, vegetables and fruit are a source of fats.

6. Answer the questions using the information of the text:

1. Is proper nutrition enough to be healthy?
2. What foods should be the foundation of the diet?
3. Why are diary products important?
4. What kind of fish is preferable?
5. What is recommended as a source of proteins instead of meat?
6. Why isn't it advised to eat a lot of nuts?
7. How can sodium intake be restricted?
8. What products are rich in fiber?

7. Match the opposites:
Regularly, health, foundation, abundant, modest, irregularly, lean, disease, fatty, top, deficiency abundance.

8. Are your eating habits healthy? What should be changed (according to the text)?

Socializing: ADVISING THE PATIENT

9. What questions can be asked about the patient's eating habits (number of meals a day, foods) and his lifestyle (his job, physical activity, free time activities, smoking and drinking habits).

10. Work in pairs. Act as a doctor and a patient

11. Your patient is a 18-year old student, weighing 110 kg, likes fast foods, spends most of his free time at home watching television, smokes 15-20 cigarettes a day and drinks beer. Advise him on healthier life. Use: ***You should…, You shouldn't.., You must…, Don't …, I advise you to …, You'll have to ….***

Basic terminology

Carbohydrates - the group includes compounds with relatively small molecules, such as the simple sugars (monosaccharides, disaccharides, etc.), as well as macromolecular (polymeric) substances such as starch, glycogen, and cellulose polysaccharides. The carbohydrates contain carbon, hydrogen, and oxygen only, but carbohydrate metabolic intermediates in tissue contain phosphorus
Consume - the using up of something
Diet - a prescribed course of eating and drinking in which the amount and kind of food, as well as the times at which it is to be taken, are regulated for therapeutic purposes
Fat - a greasy, soft-solid material, found in animal tissues and many plants
Protein - macromolecules consisting of long sequences of amino acids

UNIT 19

Key words

Affect (v) - to do something that produces a change in someone or something
Booster – a small amount of a drug that increases the effect of one that was given before, so that someone continues to be protected against a disease
Community – people who live in the same area, town
Encourage (v) - to say or do something that helps someone have the courage or confidence to do something
Impact – the effect or influence that an event, situation etc has on someone or something
Introduce (v) – put something carefully into something
Tiny – extremely small
Trigger (v) – to make something happen very quickly

Language of Medicine: VACCINATIONS

Did you like visiting a doctor when you were a child? Why? What did you like? What didn't you like?
With what did you associate doctors?
What is your opinion about vaccinations?

1. Match a word and a definition:

Toxin, antibody, impact, microorganism, immunity, antigen, antibiotics, fever, allergy.

- abnormal sensitivity to any substance;
- the group of drugs which are used in treatment of specific infections;
- a protein produced by body which reacts specifically with a foreign substance in the body;
- any protein not normally present in the body and which stimulates the body to produce antibodies;
- elevation of the body temperature;
- ability to resist infectious diseases;
- the effect that an event has on someone or something.

2. Read the NHS recommendations about vaccination. What questions can be asked to fill in the gaps in the text?

Work in pairs. Student A.: Ask questions 1-9, B.: answer the questions. Then change the roles (The information can be found in the Appendix). Fill in the gaps with the appropriate information:

(1) _____ plays an important part in protecting individuals and the community from serious diseases.

There are two main types of immunisation: (2) _____ and _____ immunisation.

With active immunisation, tiny amounts of (3) _____ microorganisms are introduced into the body, encouraging the production of antibodies which (4) _____.

With passive immunisation ready-made antibodies are injected into the body to provide (5) _____ protection.

Vaccination is very effective in preventing and reducing the impact of serious illness. Some diseases, such as (6) _____, have been completely wiped out, and it is hoped that others such as (7) _____ will soon be destroyed.

Vaccination protects the wider community, as (8) _____

Most vaccinations are given during (9) _____ Some are given more than once to maintain the level of antibodies - this is called a (10) _____.

The children are vaccinated against (11) _____.

Adult vaccinations are given in specific situations: a tetanus booster is required for people who are at risk of contracting tetanus following injury, polio boosters are advised for (12) _____, (13) _____ vaccine is offered to individuals at risk from flu or invasive pneumococcal disease, hepatitis B vaccination is offered to healthcare workers.

Vaccinations are available to people traveling to areas where they may be exposed to serious diseases such as (14) _____.

Depending on the disease being vaccinated against, the protection lasts (15) _____. The effectiveness of each vaccination varies from near total protection to only partial protection.

Side effects from vaccination are usually (16) _____. Possible side effects include (17) _____.

Rarely, some people have a serious reaction to a vaccine called (18) _____. This is a type of hypersensitive reaction triggered by antibiotics or egg protein used during manufacture. Anaphylaxis caused by vaccination is very rare.

Vaccinations are contraindicated in case of fever, severe reaction to earlier vaccinations, a blood disorder, recently received treatment for a serious illness such as cancer, or an organ transplant, an illness affecting the immune system, if the patient is taking high-dose steroids, an allergy to the antibiotics neomycin or kanamycin.

(From *NHS DIRECT HEALTH ENCYCLOPEDIA*)

3. Write out the diseases mentioned in the text.

4. Match their names with the definitions:

- disease causing the development of membrane in nose and throat;
- virus infection characterized by fever, inflammation of the nose, larynx and bronchi;
- inflammation of the liver; usually from a viral infection;
- acute febrile disease caused by the presence of parasitic organisms in red blood cells, usually transmitted to humans by the bite of a mosquito;
- acute viral infection marked by fever, a rash of pink spots, redness of the eyes and mild bronchitis;
- inflammation of the membranes of the brain or spinal cord;
- infectious disease marked by swelling of the large salivary glands;
- acute infectious inflammation of the larynx, trachea, and bronchi characterized by recurrent spasmodic coughing;
- inflammatory process involving the gray matter of the cord;
- acute infectious disease with fever, pain, vomiting and eruption of red spots which later become blisters filled with pus, on falling off leaving permanent marking of the skin;
- infectious disease characterized by painful spasms of voluntary muscles;

- acute infectious disease characterized by a continued fever, severe physical and mental depression, eruption, often diarrhea, and sometimes intestinal hemorrhage or perforation of the bowel;
- tropical mosquito-borne viral hepatitis transmitted from tree-dwelling mammals; characterized by fever, jaundice, and hemorrhages.

Which of them are typical for your area?

5. True or false. Make the false statements true:

1. Vaccines kill disease organisms.
2. Passive immunisation promotes a short-term protection.
3. Smallpox was eradicated owing to the vaccination campaign.
4. Vaccinations can prevent epidemics.
5. Vaccinations are given only to the children.
6. The duration of the immunity depends on the age of the vaccinated person.
7. Vaccinations are absolutely harmless.
7. Anaphylactic shock is caused by the microorganisms in the vaccine.

6. Work in pairs. Act agreement and disagreement. (See APPENDIX):

7. Why can people have minor features of the disease after the vaccination?

8. Has your opinion about vaccination changed after reading the test?

9. Can you supply an example how you (your friend or family member) benefited from a vaccination?

10. Can you supply an example of unpleasant events associated with vaccinations?

11. Why is it necessary to give special vaccinations to those working with the diseased people?

Socializing: SPEAKING TO A PATIENT

12. You are talking to the person being vaccinated. These are the questions which you can ask to rule out contraindications. Each question has a mistake.
Find and correct it:

1. Do you has a fever?
2. You had any reaction to previous vaccination? What was it like?
3. Have you a blood disorder?
4. Have you recently receive or are you receiving any treatment?
5. You have recently been treated for cancer?
6. Has you had an organ transplantation?
7. Have you an illness affecting your immune system?
8. Are you take any drugs?
9. You allergic to antibiotics?

13. Ask the same questions to the mother of the child being vaccinated.

14. Act as a physician and a patient (a patient's mother). Have a talk about the patient's condition. Explain him/her what has happened.

Name: Peter Harrison
Age: 40
C/o: low-grade fever, feeling unwell
Past history: vaccination against flu 2 days ago

Name: Laura Roberts
Age: 3
C/o: low-grade fever, rash
Past history: vaccination against measles a day before

Name: Tim Hopkins
Age: 2
C/o: fever, slight swelling of the glands
Past history: mumps vaccination a day before

Basic terminology

Anaphylaxis - an exaggerated, life-threatening hypersensitivity reaction to an antigen
Antibody - an immunoglobulin produced by lymphocytes in response to bacteria, viruses, or other antigenic substances
Booster - the administration of an antigen, such as a vaccine or toxoid, usually in a smaller amount than the original immunization. It is given to maintain the immune response at an appropriate level
Diphtheria –an acute, contagious disease characterized by the production of a systemic toxin and a false membrane lining of the mucous membrane of the throat
Flu - viral infection, especially of the respiratory or intestinal system
Immunisation - a process by which resistance to an infectious disease is induced or augmented
Measles - an acute viral disease involving the respiratory tract and characterized by a spreading cutaneous rash
Mumps - an acute viral disease, characterized by a swelling of the parotid glands
Poliomyelitis – an infectious virus disease affecting the central nervous system
Side effect - any reaction or consequence that results from a medication or therapy
Smallpox - a highly contagious viral disease characterized by fever, prostration, and a vesicular, pustular rash
Tetanus - an acute, potentially fatal infection of the central nervous system caused by an exotoxin, tetanospasmin, elaborated by an anaerobic bacillus, *Clostridium tetani.* The bacillus may enter the body through a wound, abrasion, laceration, or burn.
Vaccinations - any injection of attenuated microorganisms, such as bacteria, viruses, or rickettsiae, administered to induce immunity or to reduce the effects of associated infectious diseases
Vaccine - a suspension of attenuated or killed microorganisms administered intradermally, intramuscularly, orally, or subcutaneously to induce active immunity to infectious disease

Unit 20

KEY WORDS

Desire – strong hope or wish
Discoloration - the process of becoming discolored; is something is discolored or discolors, its color changes, making it look dirty or unattractive
Dispense (v) – to give something to people, especially in fixed amounts
Distribute (v) – to give something such as food, medicine, books etc to a large group of people, especially in a planned way
Exert (v) – to use power, influence in order to have a particular effect
Itching – if a part of your body itches, you have an unpleasant feeling on your skin that makes you want to rub it with your nails
Nausea – the feeling that you have when you think you are going to vomit (bring food up from your stomach through your mouth)
Origin – the situation, place or physical matter form which something begins
Trade – the activity of buying and selling goods within a country or between countries
Vomiting - bringing food or drink up from your stomach out through your mouth, because you are ill

Language of Medicine: PHARMACOLOGY

How do we call the chemicals used for treating diseases?
What science studies drugs?

1. Match the terms, denoting the subdivisions of pharmacology, and their definitions:

E.g. Pharmacokinetics is study of the metabolism and action of drugs with particular attention being given to their transport, absorption, time of action, distribution, and elimination

Chemotherapy	the study of drugs and their interactions at a molecular or subcellular level, which includes enzymes, DNA, and RNA
Pharmacokinetics	the chemistry of drugs, their composition, actions, synthesis, and analysis
Pharmaceutical chemistry	study of the metabolism and action of drugs with particular attention being given to their transport, absorption, time of action, distribution, and elimination
Molecular pharmacology	the study of toxic substances, including their detection, chemical make-up, and pharmaceutical action
Toxicology	the study of drugs and their effects on living organisms
Pharmacodynamics	the treatment of diseases, such as infectious diseases and cancers, through the application of chemicals that have specific effects

Tell about subdivisions of pharmacology

*2. Read the text and explain the meaning of the following**: pharmacist, pharmacy, pharmacology.***

DRUGS

Pharmacology is concerned with the nature, origin, and effect on the body exerted by drugs. Drugs are defined as chemicals that affect living tissues. The sub-divisions of pharmacology include the following: chemotherapy, pharmacodynamics, pharmaceutical chemistry, molecular pharmacology, pharmacokinetics, toxicology.

Drugs are distributed or dispensed by a specialist called a pharmacist and stored in a pharmacy**.**

A drug can be referred to by several names. These include the following:

1. chemical name*:* the atomic and molecular structure; may be given as a chemical formula or accompanied by a diagram of its structure.
2. generic name: a name generally proposed by the company that developed the drug; serves to identify the drug for legal and scientific purposes. Each drug has only one generic name.
3. official name*:* may be identical to the generic name of the drug; the name adopted by a specifically authorized group or agency.
4. trade or brand name*:* trade names, brand names are used to identify the drugs manufactured by various drug companies. Thus, a specific generic drug may have several trade names.

Knowing the general properties of drugs (their action, both beneficial and harmful) is essential for using them for therapy. Of major importance are the common or serious side-effects, toxicity, adverse reactions, and contraindications.

Side-effects result from the physiologic reactions caused by a drug that are not related to the desired therapeutic effect. A number of signs and symptoms are associated with side-effects and include loss of appetite, nausea, itching, headache, fever, vomiting, and discoloration of nails

Toxicity refers to the poisonous and potentially dangerous effects of certain drugs.

Adverse reactions include any other undesirable effects caused by drugs. They may be opposite to the desired effect, or may be allergic. Difficulty in breathing, unconsciousness, and even death can occur

Contraindications are those factors in a patient's condition that make the use of particular drugs dangerous; they should not be given.

Various drugs also can interact with one another. This interaction is called potentiation**.** Other drugs called inhibitors can interfere with the metabolism or actions of other drugs, possibly to the point of toxicity.

(From *MEDICAL TERMINOLOGY IN ACTION*)

3. Use the text to answer the questions:

1. What is drug?
2. Why do drugs have several names?
3. What is it necessary to know before using the drug?
4. What effects do the drugs have?
5. Why can drugs be dangerous?
6. Why can it be dangerous to use several drugs at a time?
7. What undesirable effects can drugs have?

4. Agree or disagree with the following. Make the false sentences true:

1. Pharmacology is a branch of science dealing with various aspects of drug use.
2. All drugs have several names.
3. Any person can choose a drug for treatment.
4. The more drugs you take the better.
5. When administering the drug it is necessary to know the general condition of the patient.

5. Analyze the words.
Explain how the drugs are administered:

Sublingual, intradermal, hypodermic, pareneteral, intravenous, intramuscular, intrathecal.

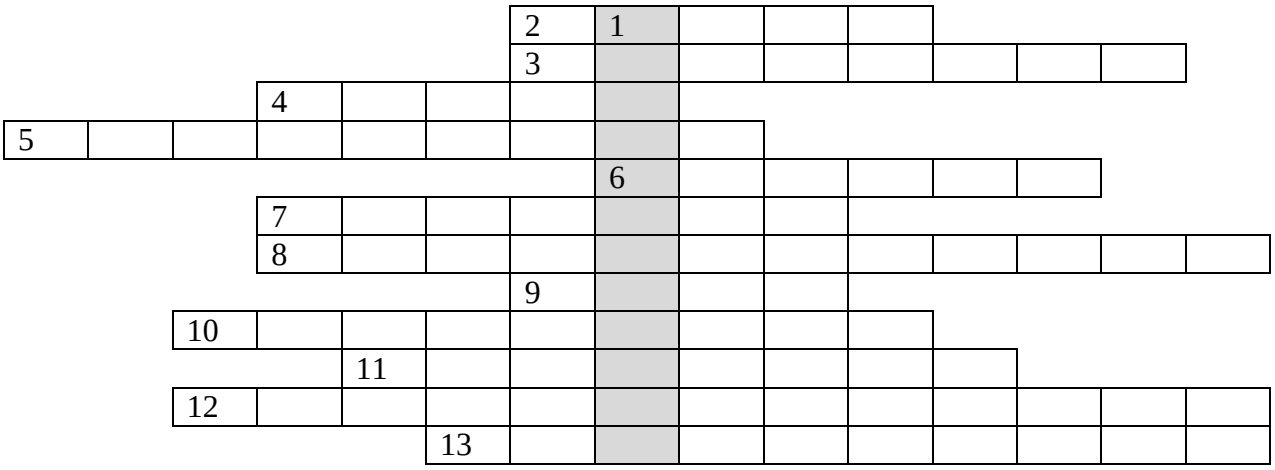
6. Match the routes of administration of drugs (a) with medications and procedures (b)

a) intravenous, rectal, oral, topical, inhalation, intrathecal, intramuscular, intradermal;

b) lotions, creams, tablets, ointments, capsules, allergy skin tests, lumbar puncture, deep injections usually into buttocks, suppositories, aerosols, infusions.

Describe how the drugs are used.

7. Do the crossword:



DOWN:
1 - sweating
ACROSS:
2 - a sudden involuntary contraction of a muscle
3 - parasitic worms
4 - increased body temperature
5 - sensation of spinning or off balance
6 – any substance that causes bodily disturbance, injury or death by chemical rather then mechanical means
7 - annoying skin sensation relieved by scratching

8 - increased blood pressure
9 – an elementary sensation of physical suffering
10 - invasion of the body by harmful microorganisms
11 - dislodging the food in stomach through mouth
12 – microscopic organism
13 - temporary loss of consciousness with severe muscle contraction

8. Match the drug and the condition or factor it is used for (more then one is possible):

Antipruritic	Spasms
Antiseptic	Microorganisms
Antipyretic	Bile excretion
Analgesic	Helminths
Antiemetic	Blood clotting
Antibiotic	Salivation
Anticephalalgic	Fungi
Anticholagogue	Increased blood pressure
Anticoagulant	Headache
Anticonvulsant	Poison
Antidynic	Sweating
Antidote	Vomiting
Antifebrile	Stones
Antimycotic	Infection
Antihypertensive	Fever
Antilithic	Itching
Antimicrobial	Convulsion
Antifungal	Dizziness
Antiperspirant	Pain
Antisialic	
Antispasmodic	
Antivermicular	

Describe what these drugs are used for.

9. Discuss your attitude to drug advertising. Do you consider it useful / beneficial / dangerous? Why?

Basic terminology

Adverse reaction - any undesirable or unwanted consequence of a preventive, diagnostic, or therapeutic procedure or regimen
Chemotherapy - treatment of disease by means of chemical substances or drugs; usually used in reference to neoplastic disease
Contraindication - any special symptom or circumstance that renders the use of a remedy or the carrying out of a procedure inadvisable, usually because of risk
Generic name - a nonproprietary name
Interaction - the phenomenon that the combined effects of two causes differ from the sum of the effects separately (as in synergism and antagonism)
Pharmaceutics - the science of pharmaceutical systems, i.e., preparations, dosage forms, etc.
Pharmacist - one who is licensed to prepare and dispense drugs and compounds and is

knowledgeable concerning their properties
Pharmacodynamics - the study of uptake, movement, binding, and interactions of pharmacologically active molecules at their tissue site(s) of action
Pharmacokinetics - movements of drugs within biological systems, as affected by uptake, distribution, binding, elimination, and biotransformation; particularly the rates of such movements
Pharmacology - the science concerned with drugs, their sources, appearance, chemistry, actions, and uses
Pharmacy - the practice of preparing and dispensing drugs.; a drugstore
Potentiation - interaction between two or more drugs or agents resulting in a pharmacologic response greater than the sum of individual responses to each drug or agent
Side-effect - a result of drug or other therapy in addition to or in extension of the desired therapeutic effect; usually but not necessarily, an undesirable effect
Toxicity - the state of being poisonous
Toxicology - the science of poisons, including their source, chemical composition, action, tests, and antidotes

Unit 21

KEY WORDS

Concomitant – existing or happening together
Dilute (v) – to make a liquid weaker by adding water
Excitation – feeling nervous without ability to relax
Fertility – the ability of a person to produce babies
Interfere – to get involved in a situation that does not concern you
Irritation – painful sore feeling in a part of your body
Leaflet – a small piece of printed paper giving information
Rash – a lot of spots on someone's skin
Retention – the ability to hold liquid
Reverse – to change something so that it is the opposite of what it was before
Solution – a liquid mixed with a solid or gas
Store (v) – to keep things until you need them

Language of Medicine: DRUG LEAFLET

When you first hear about a new drug, what would you like to know about it?
Where can you find the necessary information?

1. These are the headlines from several drug leaflets. Which of them is for patient, which is for doctors:

- Please read carefully this leaflet, it contains important information about your medicine
- To the Medical and Pharmaceutical Professions
- What you should know about Elatan LA25. Please read this carefully before you start to take your medicine.
- Meta-iodobenzylguanitidine for Therapeutic Use. Technical information.
- Patient information leaflet

2. These are some paragraph titles from a drug leaflet. What are the paragraphs about? (Use the meaning of the combining forms to explain the words: ***contra*** *– against,* ***terato*** *– monster,* ***inter*** *– between,* ***muta*** *– change,* ***carcino*** *– cancer)*

CONTRA-INDICATIONS
TERATOGENICITY
DRUG INTERACTIONS
MUTAGENICITY AND CARCINOGENICITY

3. Match a question about a new drug and a paragraph title from a drug leaflet:

a) Contra-indications
b) Teratogenicity
c) Drug interactions
d) Mutagenicity and carcinogenicity
e) Indications
f) Use in pregnancy and lactation
g) Dosage and Administration
h) Side and adverse effects
i) Toxicity and treatment of overdosage

1) Can this drug cause cancer?
2) Can this drug affect the fetus development?
3) Is it dangerous to pregnant and breast-feeding mothers?
4) What patients should not take this drug?
5) How is the drug administered?
6) What dose of the drug is recommended?
7) What is it for?
8) Can it be taken with other drugs?
9) What diseases can be treated with this drug?
10) Are there any special ways of taking this drug?
11) Is the drug taken orally?
12) Is it well tolerated?
13) Can this drug cause headache, vomiting, etc.?

4. Read the drug leaflet and fill in the gaps with the titles of the paragraphs:

Pharmaceutical Precautions; Contra-indications, Warnings, etc; Teratogenicity; Drug interactions; Mutagenicity and carcinogenicity; Indications; Use in pregnancy and lactation; Dosage and Administration; Presentation; Fertility; Side and adverse effects; Toxicity and treatment of overdosage

_____

Tablets: Each white, round tablet contains 2.5 mg Triprolidine Hydrochloride BP and 60 mg Pseudoephedrine Hydrochloride BP.

Syrup: Each 5 ml contains 1.25 mg Triprolidine Hydrochloride BP and 30 mg Pseudoephedrine Hydrochloride BP in a clear yellow, pleasantly-flavoured oral solution.

_____

Actifed is indicated for the symptomatic relief of upper respiratory tract disorders which are benefited by a combination of a histamine H-receptor antagonist and a nasal decongestant. These include allergic rhinitis, vasomotor rhinitis, the common cold and influenza.

_____

Adults and children over 12 years: One tablet or 10 ml syrup three times daily.

Children under l2 years
6-12 years: 5 ml syrup three times daily.
2-5 years: 2.5 ml syrup three times daily.
6 months-under 2 years: 1.25 ml syrup three times daily.

A physician's advice should be obtained before administering **Actifed** to children aged less than 2 years.

The elderly

There have been no specific studies of **Actifed** in the elderly. Experience has indicated that normal adult dosage is appropriate, although it may be advisable to monitor renal and/or hepatic function: if there is serious impairment then caution should be exercised.

_____

Contra-indications

Actifed is contra-indicated in individuals who have previously exhibited intolerance to it or to any of its constituents.

Actifed is contra-indicated in patients with severe hypertension or severe coronary artery disease.

The concomitant use of pseudoephedrine and this type of product may occasionally cause a rise in blood pressure.

Although there are no reports of hypertensive crises caused by the concurrent administration of **Actifed** and furazolidone, they should not be taken together.

Precautions

Patients should not drive or operate machinery until they have determined their own response.

Although there are no objective data, users of **Actifed** should avoid the concomitant use of alcohol or other centrally acting sedatives.

Actifed should be used with caution in patients with hypertension, heart disease, diabetes, hyperthyroidism, elevated intra-ocular pressure and prostatic enlargement.

There have been no specific studies of **Actifed** in patients with hepatic and/or renal dysfunction. Caution should be exercised in the presence of severe renal or hepatic impairment.

_____

There is insufficient information available to determine whether triprolidine or pseudoephedrine have mutagenic or carcinogenic potential.

_____

In rats and rabbits, systemic administration of triprolidine up to 75 times the human daily dosage did not produce teratogenic effects.

Systemic administration of pseudoephedrine up to 50 times the human daily dosage in rats and up to 35 times the human daily dosage is rabbits, did not produce teratogenic effects.

_____

There is no information on the effect of **Actifed** on human fertility.

_____

Concomitant use of **Actifed** with other sympathomimetic agents such as decongestants, tricyclic antidepressants, appetite suppressants.

Because of its pseudoephedrine contents, XXX may partially reverse the hypotensive action of drugs which interfere with sympathetic activity.

_____

Central nervous system depression or excitation may occur, drowsiness being reported most frequently. Sleep disturbance and, rarely, hallucinations have been reported. Skin rashes, with or without irritation, tachycardia and dryness of the mouth, nose and throat, have occasionally been reported. Urinary retention has been reported occasionally in men receiving pseudoephedrine; prostatic enlargement could have been an important predisposing factor.

_____

Although pseudoephedrine and triprolidine have been in widespread use for many years without apparent ill-consequence, there are no specific data on their use during pregnancy. Pseudoephedrine and triprolidine are excreted in breast milk in small amounts but the effect of this on breast-fed infants it not known.

_____

The effects of acute toxicity from **Actifed** may include drowsiness, lethargy, dizziness, ataxia, weakness, hypotonicity, respiratory depression, dryness of the skin and mucous membranes, tachycardia, hypertension, hyperpyrexia, hyperactivity, irritability, convulsions and difficulty with micturition.

Necessary measures should be taken to maintain and support respiration and control convulsions. Gastric lavage should be performed up to 3 hours after ingestion if indicated. Catheterization of the bladder may be necessary. If desired, the elimination in pseudoephedrine can be accelerated by acid diuresis or by dialysis.

_____

Tablets: Store below 25˚C in a dry place and protect from light.

Syrup: Store below 25˚C and protect from light.

Dilution

Actifed Syrup may be diluted to half-strength or quarter-strength with unpreserved Syrup BP. The dilution should be stored at 25˚C and used within 28 days.

(From *ACTIFED leaflet*)

5. True or false:

1) This drug is produced both in tablets and as a syrup.
2) This drug relieves headache.
3) This drug should not be administered to children under 2.
4) The dose for an adult is 5 mg three times a day.
5) The drug can influence the function of the liver and kidneys in patients over 60.
6) The patients with heart problems should not take this drug.
7) It is good to take it with furazolidone.

8) All people who take this drug become sleepy.

9) This drug may cause hypertension, heart diseases, diabetes, hyperthyroidism, elevated intra-ocular pressure, and prostatic enlargement.

10) There is no information that the drug causes cancer.

11) The drug did not influence the fetus development in experimental animals.

12) When used with some drugs it can elevate the blood pressure.

13) It is possible that this drug will cause sleepiness, rapid heart beat, dryness of the mouth, nose and throat, eruptions, problems with urination.

14) If it is necessary to reduce the dose, mineral water can be used for dilution.

15) The drug should be kept in a refrigerator.

6. Explain the meaning of the terms from the text:

Rhinitis

Elderly

Hepatic

Renal

Contra-indicated

Hypertension

Concomitant

Antibacterial

Normotensive

Intra-ocular

Dysfunction

Carcinogenic

7. Work in pairs. Use the questions of Ex. 3 to discuss XXX..

Socializing: SPEAKING TO THE PATIENT

8. These are the questions which are asked by a doctor or a pharmacist before administering medicines. Which of them can be asked when administering XXX?

Are you allergic to penicillin?
Have you ever been given local anesthesia? Did you tolerate it well?
Have you suffered any allergic reactions taking any drug for headache?
Are you pregnant?
Are you thinking of becoming pregnant?
Are you breast feeding a baby?
Are you taking any other medicines for your heart or blood pressure?
Are you taking furazolidone?

Are you taking other drugs?
Do you suffer from anemia?
Do you suffer from low blood pressure?
Do you suffer from liver or kidney disease?
Do you suffer from decreased activity of the thyroid gland?
Do you suffer from very low body temperature?
Have you suffered acute myocardial infarction?
Have you suffered head injury?

9. What questions should be asked before administering these drugs:

CIFRAN

Precautions: As ciprofloxacin may cause CNS stimulation, it should be used with caution in patient with CNS disorders such as severe cerebral arteriosclerosis or epilepsy.
The dosage should be reduced in patients with renal impairment.
Since ciprofloxacin caused arthropathy in immature animals, it should not be used in pregnant and nursing women.
Drug interactions: serum concentration of theophylline may be increased when it is used concurrently with CIFRAN. It is recommended that patients be monitored for the signs of theophylline toxicity during concurrent use and dose adjustments made as appropriate. Probenecid delays the excretion of CIFRAN.
Concurrent administration of antacids with CIFRAN should be avoided.

METAIODOBENZYLGUANIDINE

Contra-Indications
Pregnancy is an absolute contra-indication.
Precautions for use
Several drugs used in the treatment of high blood pressure and in psychiatry, interact with meta-iodobenzylguanidine. These drugs should be stopped before treatment (usually for four biological half-lives).
Dosages for patients, who have undergone prior treatment with cytostatic drugs may have to be adjusted accordingly.
Interactions
The following drugs are known or may be expected to prolong or to reduce the uptake of meta-iodobenzylguanidine.
Nifedipine (a Ca-channel blocker) is reported to prolong retention of metaiodobenzylguanidine.
Decreased uptake was observed under therapeutic regimens involving the administration of:
- Antihypertensive drugs (diltiazem, nifedipine, verapamil);
- Sympathomimetic agents (present in nasal decongestants, such as phenylephrine. Ephedrine or phenylpropanolamine);
- Tricyclic antidepressants such as doxepin, amoxapine and loxapine.
- Antidepressants such as maprotiline and trazolone.
These drugs should be stopped before treatment (usually for four biological half-lives).

10. In pairs have a talk with a 60-year old man with a history of gastric ulcer whom you are going to prescribe CIFRAN and a 35-year old woman with a history of hypertension whom you are going to prescribe treatment with metaiodobenzylguanidine.

*11. You are going to administer **Actifed** to a 20-year old patient. Advise him on the dose, warn about possible side effects and drug interactions.*

Basic terminology

Carcinogenicity - the ability to cause cancer
Contra-indications – any factor in a patient's condition that makes it unwise to pursue a certain line of treatment
Dialysis – a method of separating particles of different dimensions in a liquid mixture
Diuresis – increased secretion of urine by the kidneys
Dizziness – inability to maintain normal balance in a standing or seated position
Indications – any of the conditions for which a particular drug treatment may be prescribed
Ingestion – the process by which the food is taken into the alimentary tract
Lavage – washing out of a body cavity
Lethargy – mental and physical sluggishness
Micturicion - urination
Mutagenicity – the ability to cause mutations
Teratogenicity - the ability to cause developmental abnormalities in the fetus

Unit 22

KEY WORDS

Adjust – to make small changes to something, especially to its position, in order to improve it, make it more effective
Complication – a medical problem or illness that happens while someone is already ill and makes medical treatment more difficult-
Potency – the strength of the effect of a drug, medicine, alcohol
Recurrent – happening or appearing reputedly
Reduce – to make something smaller
Resistant – not damaged or effected by something
Shedding – falling off, dropping
Varicella (syn **chickenpox) -** an acute viral disease that occurs in young children and is characterized by eruptions on the skin

Language of medicine: DRUG DESCRIPTION

What is the difference between viruses and bacteria?
Which of the following are viral infections:
Flu, gastric ulcer, alcoholism, hepatitis, measles, mumps, scarlet fever, cold sores, appendicitis, smallpox.

1. Read the test. Is the following discussed in the text:

1) the diseases treated with acyclovir;
2) dosage;
3) pharmacological properties of acyclovir;
4) mode of action of acyclovir;
5) indications;
6) contraindications;
7) side-effects.

ACYCLOVIR

Acyclovir is active against herpes viruses (in order of potency): HSV-l, HSV-2, VZV, Epstein-Barr virus (EBV). It has minimal activity against cytomegalovirus (CMV).

Oral acyclovir is effective for primary and recurrent genital HVS. In primary genital HSV, oral acyclovir 400 mg po tid or 200 mg po q 6 h for 10 days shortens the clinical course, reduces pain, and decreases viral shedding. For episodic recurrences, acyclovir 200 mg q 4 h should be started at first sign of infection. Suppression is more efficacious and should be considered if a patient has more than six outbreaks of genital HSV a year. Adverse effects are infrequent with oral administration, but nausea, vomiting, diarrhea, headache, and rashes have been reported. Dose should be adjusted for renal insufficiency. Patients who have frequent outbreaks may require higher doses. If patients are resistant to acyclovir, alternatives such as foscarnet may be tried.

IV acyclovir is indicated when a higher serum level of drug is required, as in herpes encephalitis. It reduces mortality and improves functional capacity of survivors. The best response is in younger patients who begin therapy before onset of coma. In neonatal herpes infections, acyclovir 30 mg/kg day IV divided q 8 h for 10 to 14 days is more effective than vidarabine and requires less fluid for administration. Adverse effects include phlebitis, rash, and neurotoxicity resulting in lethargy, confusion, seizures, or coma.

Depending on extent of disease and host immune status, either IV or oral acyclovir is effective in primary varicella. It reduces complications of varicella in immunocompromised patients and pregnant women. In immunocompetent adults, oral acyclovir may reduce duration of fever and vesicles. For herpes zoster, 800 mg po 5 times/day has been shown to reduce the time to healing of lesions and, particularly in older patients, the prevalence of postherpetic neuralgia. Acyclovir is also effective in reducing complications of herpes zoster ophthalmicus.

(From *THE MERCK MANUAL*)

2. True or false. Make the false statements true:

a) Acyclovir can be used to treat herpes virus infections.
b) Acyclovir can be used both orally and in injections.
c) Acyclovir is used for nausea, vomiting, diarrhea, headache.
d) In patients with kidney problems, acyclovir is not indicated.
e) Acyclovir is used together with foscarnet.
f) In severe brain infections acyclovir is administered intravenously.
g) Acyclovir can reduce the complications of smallpox.

Work in pairs. Agree or disagree with the statements.

3. What do the abbreviations stand for:

IV
po
tid
q
h
mg
kg

4. Write out the diseases mentioned in the text.
Is acyclovir effective for all of them?

5. Match a phrase in A with a phrase in B to make statements:

A	**B**
Acyclovir is effective	nausea, vomiting, diarrhea, headache.
Acyclovir is recommended when	require special attention when treated with acyclovir.
Side effects of acyclovir include	foscarnet may be tried.
Patients with renal diseases	acyclovir shortens the duration of treatment.
If acyclovir is ineffective	the patient has more than six attacks of genital infection a year.
In herpes zoster	for herpes virus infections

6. What questions should be asked to restore the missing information:

a) Acyclovir is active against ___.

b) The drug is administered for ___ days.

c) Acyclovir is started ___.

d) Adverse effects may include ___.

e) ___ is given when the patient is resistant to the drug.

f) In patients with chickenpox Acyclovir reduces ___.

Work in pairs. Ask for information. Use: ***Can you tell me…, Could you tell me…, Would you mind telling me …***

7. Read the text and fill in the gaps:

Valacyclovir _____ _____ _____ HSV-1, HSV-2 and HZV. It _____ minimal _____ _____ CMV.
Valacyclovir _____ _____ _____ genital herpes. It _____ healing time and length of episode. The _____ for primary genital HSV is 1 g po bid _____ 10 days; for recurrent _____ _____ 500 mg po bid for 5 days. Suppressive therapy _____ _____ _____ and _____ _____ considered if the patient has more than six outbreaks a year. Early treatment of herpes zoster demonstrated improvement in _____ time and, particular in _____ patients, duration of _____ neuralgia. _____ _____ of valacyclovir are nausea, vomiting, diarrhea, headache.

8. Work in pairs. Student A.: ask questions about Gentamycin (indications, adverse reactions, dosage, administration). Student B.: answer the questions using the information in the Appendix.

9. Write a lecture about Gentamycin. Use the information of Ex. 8.

Socializing: SPEAKING TO THE PATIENT

10. You administer acyclovir to your patient. Recommend her/him the dose:

400 mg po tid
200 mg po q 6 h for 10 days
200 mg q 4 h
800 mg po 5 times/day

11. Explain your patients possible side effects of acyclovir administration.

Basic terminology

Headache - pain in various parts of the head, not confined to the area of distribution of any nerve
Insufficiency - lack of completeness of function or power.
Mortality - a fatal outcome.
Nausea - symptoms resulting from an inclination to vomit
Oral - Relating to the mouth
Rash – skin eruption
Vomiting - the ejection of matter from the stomach through the esophagus and mouth
Diarrhea - an abnormally frequent discharge of semisolid or fluid fecal matter from the bowel

Unit 23

KEY WORDS

Application – practical use
Complete – to finish doing something, to make something whole
Dizziness – feeling unable to balance, especially after spinning around or because you feel ill
Employ - to use a particular method or skill in order to do something
Evaluate - to see how useful of valuable something is
Exacerbate – to make a bad situation worse
Flush – red color that appears on your face or body, especially because you are embarrassed, ill, excited
Impediment – a situation that makes it difficult or impossible for someone
Mask - to cover something so that it cannot be properly seen
Obscure - to prevent something from being seen
Opaque - pertaining to a substance or surface that neither transmits nor allows the passage of light
Render - to express or present something in a particular way
Sequence – the order that events or actions happen
Tolerance - the ability to endure hardship, pain, or ordinarily injurious substances, such as drugs, without apparent physiologic or psychologic injury
Transient – continuing only for a short time

Language of medicine: TESTS AND INVESTIGATIONS

How do we know that the patient has a particular disease?
What is it necessary to know to make a diagnosis of the disease?
How can a doctor obtain this kind of information?
What kinds of investigations do you know?

*1. **IMAGE** is a picture on the screen (television, cinema, and computer). **IMAGING** is taking picture for diagnosis. Which of the following are medical imaging techniques:*

Radiography, biography, ultrasonography, computed tomography, magnetic resonance imaging, geography, cholangiography, photography, cholecystectomy, bibliography, cholecystography, positron emission tomography, electroencephalography, ultrasonography, single-photon emission computed tomography, graphology.

Which of them use x-rays?
What structure is investigated by cholecystography (cholangiography)?
What physical phenomenon is applied in ultrasonography?
Is radiogram a picture or examination?

2. Read the text. Which of the following was not mentioned?

Risks, History of intravenous cholangiography, Varieties of contrast substances, Preparation of the patient, Indications and contraindications, Definition, Treatment of complications, Physical principles of the procedure, Procedure, The role of intravenous cholangiography, side effects.

Put those mentioned in the order they appear in the text.

INTRAVENOUS CHOLANGIOGRAPHY

Intravenous cholangiography is the radiological examination of the biliary system that is rendered opaque by an iodate contrast medium injected intravenously.

Recently it has become possible to study the liver and biliary system by other techniques, such as ultrasonography, computed tomography, nuclear magnetic resonance, and direct cholangiography (percutaneous and retrograde techniques), which has reduced the applications of intravenous cholangiography. Nevertheless, cholangiography has its place in radiological diagnosis, and the examination is still frequently required. The technique is particularly indicated when more modern imaging modalities cannot provide a diagnosis.

The patient must fast from the evening prior to the examination. A light diet and the administration of laxative help to ensure that the colon is not distended with air and fecal remains, and so does not obscure the extrahepatic biliary ducts from radiographic view. The allergic history of the patient must be evaluated and routine blood tests for liver, kidney, and thyroid function and immunoglobulin levels must be performed first.

After a plain film of the hepatic region to detect any pathologic calcifications which might be masked by contrast, the contrast medium is administered by intravenous infusion. The concentration of iodine in the solution can vary from 20 to 150 mg/ml; therefore, depending on the technique employed, the quantity of contrast administered, and the length of administration time (5-120 min) can also vary.

The biliary system is visible from 15 to 90 min after the end of infusion. Radiograms are obtained in the most suitable projections to achieve the complete visualization of the biliary tree. If the gallbladder is opaque, the examination is completed by films obtained 30 min after a cholecystokinetic meal.

Intravenous cholangiography is rarely a first-choice examination. In the diagnostic sequence for a noncholecystectomied patient with biliary colic, intravenous cholangiography follows ultrasonography and cholecystography when these last two examinations do not provide the information sought. In a patient who has had a cholecystectomy, a painful symptomatology is a major indication for intravenous cholangiography. The sequence of diagnostic examinations must take into account invasive intervention, patient discomfort, risk, and cost. For these reasons, ultrasonography always precedes intravenous cholangiography, even if the former can only rarely pinpoint calculi in the extrahepatic biliary ducts. Where possible, computed tomography should also precede intravenous cholangiography.

Contraindications to intravenous cholangiography are those pathologies that contraindicate use of iodate: multiple myeloma, Waldenstrom paraproteinemia, and oliguria. Liver insufficiency is an impediment to the examination, rather than a contraindication, as the liver is unable to take up and secrete contrast.

The major risk of intravenous cholangiography is that of inducing severe intolerance reactions to iodinated contrast medium. Between 4% and 10% of patients show reactions to contrast, though in most cases the effects are transient and clinically not significant. These include nausea, vomiting, diffuse flush, generalized heat sensations, headache, and dizziness. In hyperthyroid patients it is worth noting that there is a risk of exacerbating symptoms some time after contrast administration.

(From *BASIC CONCEPTS IN DIAGNOSTIC IMAGING*)

3. Do you agree that:

- intravenous cholangiography is performed using x-rays;
- there are several methods which can visualize the liver, gallbladder and bile ducts;
- intravenous cholangiography

- the patient should not eat for several hours;
- before the examination the patient should be asked about allergy;
- the contrast substance is administered intramuscularly;
- it is possible to obtain the picture immediately after the contrast administration;
- if the patient complains of a colic in the liver, intravenous cholangiography is done first;
- ultrasonography was invented before the invention of intravenous cholangiography

4. What do the numbers in the text refer to? Match numbers in A with explanations in B:

A	B
20 – 150	the percentage of patients who may develop side effects;
5 – 120	the time when it is possible to see the image;
15 – 90	contrast substance is injected for this time;
4-10	amount of iodine in a milliliter of solution;

5. Use the phrases to make questions:

1) What / intravenous cholangiography?
2) Why / it / become less popular recently?
3) It / require any special preparation of the patient?
4) What / duration of the contrast substance infusion?
5) When / the films / can / obtain?
6) Intravenous cholangiography / perform before or after ultrasonography and cholecystography?
7) What factors / consider before the examination is advised?
8) In what cases / intravenous cholangiography / forbid?
9) What / side effects of intravenous cholangiography?
10) All patients / develop intolerance reactions?

6. Match the questions (Ex. 5) with the subheadings (Ex. 2).
Find the answers in the text.
Work in pairs to ask and answer the questions.

7. Study the combining forms:

-graphy – process of recording
-gram - record
-graph – instrument for recording
-scopy – visual examination
radio – rays (usually x-rays)
sono- sound
thermo- heat
-scope – instrument for visual examination

Build medical terms with the following meaning:

X-ray study of the veins (kidneys, urinary system, liver, arteries, vessels, gallbladder, bronchi, urinary bladder), visual examination of the stomach, instrument for visual examination of the bronchi, process of recording using x-rays, process of recording the heat (of the body), making images using ultrasound, instrument for visual examination of the rectum, visual examination of the duodenum.

Socializing: SPEAKING TO THE PATIENT

8. In the dialogue, put the words in the proper order to make questions:

D: Well, Mr. Smith. Before we do x-ray examination, I have some questions to you.

Gallbladder, has, removed, been, your?
P: No, it hasn't.
D: Have, done, been, x-ray, you, of, the, examination, gallbladder, or, ever, liver?
P: No, I haven't.
D: Any, are, drugs, foods, there. or, that, are, to, allergic, you?
P: I don't know exactly.
D: Are to sensitive iodine you?
P: No, I am not.
D: Have, do, with, any, you, your, problems, thyroid?
P: I've no idea.
D: Well, I think, first you should consult an endocrinologist about it. And you should have blood test performed.

9. Read and compare:

I have performed blood test (I did it myself).
I have blood test performed (Somebody did it for me).

10. Join the lines in A, B, C, and D to make sentences:

A	B	C	D
I She He They We	Have Has	ultrasonography CT MRI blood test urinalysis whole body scan thyroid function x-ray examination of the chest angiography kidney function urography contrast study of the esophagus liver function	made performed done studied taken

11. Ask your patient if he/she underwent the following procedures: chest x-ray, x-ray study of the kidneys, bone scan, ultrasound study of the liver (lymph nodes, kidneys, thyroid gland), electrocardiogram, blood test, urinalysis.

E.g.: Did you have blood test made?

12. Explain your patient what examination you are going to have made in case of suspected fracture (x-ray), pneumonia (chest x-ray), stones in the kidneys (x-ray study of the kidneys), stones in the liver (liver ultrasonography), heart attack (electrocardiogram).

E.g.:

Doctor – ask about the problem: What's the problem? / What's the trouble? / What's brought you along today?

Patient – respond: I've hit my leg and have a bad pain now.

Doctor – make an assumption, tell about examination: Your leg may be broken. I am going to have an x-ray taken and then we'll see.

13. Study the tests and investigations used in some diseases. Work in groups of 3 or 4. Discuss the necessity of investigations:

Use: ***Should, must, is required (essential, important, indicated); could; need not, is not necessary (required, important).***

Disease	Investigations		
	Essential	**Possibly useful**	**Not required**
Peptic ulcer	Endoscopy, cytology, biopsy	X-ray with barium contrast	CT
Urinary calculi	Blood test, urinalysis, intravenous urography, renal ultrasonography, CT		ECG
Cholecystitis	Ultrasonography, radioisotope liver scan		CT
Pneumonia	Blood test, chest x-ray		Ultrasonography
Brain abscess	CT, MRI		CSF test
Angina pectoris	ECG, coronary angiography, echocardiography, radionuclide ventriculography	Positron emission tomography (PET), single-photon emission computer tomography (SPECT)	MRI

Basic terminology

Angiography – imaging of blood vessels
Blood test – any test designed to discover abnormalities in a sample of a person's blood
Cholangiography - radiographic examination of the bile ducts
Computed tomography (CT) – a form of x-ray examination in which the x-ray source and detector rotate around the object and the information obtained can be used to produce cross-sectional images
Electrocardiography (ECG) – a technique for recording the electrical activity of the heart
Electroencephalography (EEG) - a technique for recording the electrical activity of different parts of the brain
Magnetic resonance imaging (MRI) – a diagnostic imaging technique based on the emission of electromagnetic waves from the body when the patient is placed in a strong magnetic field
Positron emission tomography (PET) – a technique in nuclear medicine for cross-sectional imaging that enables a non-invasive assessment and localization of metabolic activity to be made
Radiography – the technique of examining the body by directing x-rays through it to produce images
Ultrasonography – the use of ultrasound to produce images of structures in the human body
Urinalysis – the analysis of urine using physical, chemical and microscopical tests

Unit 24

KEY WORDS

Crackling – short sharp sound like something burning in the fire
Distress – great physical pain
Onset - beginning
Permit – to allow something to happen
Precede – to happen or exist before something
Prevalent – common in a particular time or a particular place
Recur – to happen again
Rhoncus - rattling sound in the chest
Scatter - to throw or drop a lot of things over a wide area in an irregular way
Subside – to decrease gradually
Urge – to strongly suggest that something should be done
Wheeze (v) – to breeze with difficulty, making a whistling sound in your throat and chest

Language of medicine: RESPIRATORY INFECTIONS

Have you ever been ill?
What were you ill with?
What kind of disease is it?

1. Fill in the chart using the names of the diseases in the box:

System	***Disease***

Angina pectoris, appendicitis, arthritis, asthma, atherosclerosis, bone fracture, bronchitis, colitis, dermatitis, diabetes mellitus, encephalitis, endocarditis, endometriosis, gastritis, glomerulonephritis, insomnia, meningitis, migraine, myocardial infarction, nephritis, osteomyelitis, osteoporosis, pancreatitis, peptic ulcer, peritonitis, pleurisy, pneumonia, prostatitis, renal failure, stroke.

2. Which of the following may be associated with respiratory system disorders?

Anorexia, bleeding, borborygmus, breathlessness, chills, constipation, cough, cramp, deafness, diarrhea, dizziness, dyspepsia, dysphagia, fatigue, fever, halitosis, headache, heartburns, hoarseness, hypertension. itching, jaundice, nausea, pain in the abdomen, painful breathing, painful swallowing, pruritus, ringing sound in the ears, sleeplessness, sore throat, spasm, stomachache, tinnitus, toothache, trembling, vomiting, weakness.

3. Match a common word and a term:

Pharynx	Reappear
Coryza	Throat
Malaise	Breastbone
Sternum	Running nose
Recur	Pain-killer
Analgesic	Uneasiness

4. Supply the words to the definitions:

Fever	Viral infection of man causing symptoms of nasal fullness, cough, fever
Bronchitis	An attempt to expel something causing irritation of the respiratory tract
Cough	Acute inflammation of the tracheobronchial tree
Common cold	Anything that reduces fever
Antipyretic	Elevated body temperature

5. Read the text. Which title is most suitable?

UPPER RESPIRATORY INFECTION
COMMON COLD
VIRAL INFECTIONS OF THE RESPIRATORY SYSTEM
ACUTE INFECTIOUS BRONCHITIS
PNEUMONIA

Acute infectious bronchitis, most prevalent in winter, is generally part of an acute upper respiratory infection. It may develop after a common cold or other viral infection of the nasopharynx, throat, or tracheobronchial tree. Bronchitis often recurs in patients with chronic bronchopulmonary diseases and may recur in those with chronic sinusitis, bronchopulmonary allergy and in children with diseases of tonsils or adenoids.

Acute infectious bronchitis is often preceded by symptoms of an upper respiratory infection: coryza, malaise, chills, slight fever, back and muscle pain, and sore throat. Onset of a distressing

cough usually signals onset of bronchitis. The cough is initially dry and nonproductive, but small amounts of sputum are raised after a few hours or days. Later sputum may be more abundant. Some patients have burning substernal chest pain, which is aggravated by coughing. In a severe uncomplicated case, fever of 38.3 to 38.8° C may be present for up to 3 to 5 days, after which acute symptoms subside (although cough may be present for several weeks).

Pulmonary signs are few in uncomplicated acute bronchitis. Scattered rhonchi may be heard as well as occasional crackling or moist rales. Wheezing, especially after cough, is common.

Diagnosis is usually based on the symptoms and signs, but chest x-ray is indicated if symptoms are severe and prolonged.

The patient should rest until fever subsides. Oral fluids are urged during the febrile course. An antipyretic analgesic relives malaise and reduces fever. Antibiotics are indicated when purulent sputum is present or fever persists and the patient is more than mildly ill.

(From *THE MERCK MANUAL*)

6. Is the following true or false:

a) Acute bronchitis occurs only in winter.
b) Patients with chronic diseases of the bronchi and lungs may have bronchitis frequently.
c) Before developing bronchitis the patients usually have coryza, malaise, chills, slight fever, back and muscle pain, and sore throat.
d) At the beginning of the disease the cough is usually without sputum.
e) Burning pain behind the breastbone becomes worse after coughing.
f) The body temperature elevates on day 3 or 5 of the disease.
g) To make a diagnosis of acute bronchitis it is necessary to make chest x-ray.
h) The patient should stay in bed until the cough disappears.
i) Antibiotics are not given in every case of acute bronchitis.

7. Which of the following is always recommended in case of acute bronchitis. Which is recommended in some cases?

Bed regimen, drinking plenty of fluids, drugs which reduce fever, antibiotics.

8. Write out the names of anatomical structures mentioned in the text.

9. Write out symptoms mentioned in the text.

10. Discussing acute bronchitis you are interested in the following:

the usual season for bronchitis

predisposing factors

recurrence of the disease

signs of acute bronchitis

character of cough

treatment of acute bronchitis

What questions can be asked?

Work in pairs. Ask and answer the questions.

11. Fill in the gaps to write a case presentation:

A case of acute infectious bronchitis

N.N., aged 30, presented with cough and fever. The disease was preceded by _____. The cough was initially _____, after a few hours _____. He had _____ pain, which _____ by coughing. Pulmonary signs _____ Scattered rhonchi _____ as well as occasional crackling and moist rales. Wheezing, especially after cough _____ present. The patient was advised _____ during the febrile course. He was administered _____. Antibiotics were not _____ because purulent sputum _____. Fever of 38.3 _____ for 3 days, after which acute symptoms subsided (although the cough _____ for several weeks).

Socializing: SPEAKING TO THE PATIENT

12. Fill in the gaps to make questions. Use ***Are, Did, Do, Does, Have, How long, Has, Is, Was, What, When:***

____ has the cough been bothering you?

____ did the cough start?

____ seems to bring it on?

____ there anything else you feel at the same time?

____ anything make it better/worse?

____ you cough up phlegm?

____ you noticed pain in the chest or behind the breastbone?

____ you have a spit (shortness of breath)?

____ the cough begin suddenly?

Apart from your cough ____ there any other problems?

____ there anything that makes it better/worse?

____ caused this?

____ have you had the cough?

____ it changed suddenly?

13. These are instructions to the doctor about questioning the patient with a cough. Match the questions (ex. 12) with the instruction.

Questions about cough should determine how long the cough has been present, whether it began suddenly, if it has changed suddenly, what factors influence it (e.g. cold air, talking, posture, eating or drinking, time of day), and whether it is associated with sputum production, chest or retrosternal throat pain, dyspnea, hoarseness, dizziness, or other symptoms. The patient should be asked what he thinks causes it.

(From *THE MERCK MANUAL*)

14. Work in pairs. Act as a doctor and a patient with bronchitis.

Basic terminology

Bronchitis - inflammation of the mucous membrane of the bronchial tubes
Chills - a feeling of cold with shivering and pallor, accompanied by an elevation of temperature; usually a prodromal symptom of an infectious disease
Coryza - an acute catarrhal inflammation of the mucous membrane of the nose, marked by sneezing, lacrymation, and a profuse secretion of watery mucus; usually associated with infection by one of the common cold viruses
Cough - a sudden explosive forcing of air through the glottis and excited by mechanical or chemical irritation of the trachea or bronchi, or by pressure from adjacent structures
Malaise - a feeling of general discomfort or uneasiness, often the first indication of an infection or other disease
Rale - an added sound heard on auscultation of breath sounds; used by some to denote rhonchus and by others for crepitation
Rhonchus – rattling sound in the chest
Sign - any abnormality indicative of disease, discoverable on examination of the patient; an objective symptom of disease, in contrast to a symptom which is a subjective sign of disease
Sinusitis - inflammation of the lining membrane of any sinus, especially of one of the paranasal sinuses
Sputum - mucus or mucopurulent matter expectorated in diseases of the air passages
Synptom - any morbid phenomenon or departure from the normal in structure, function, or sensation, experienced by the patient and indicative of disease

Unit 25

KEY WORDS

Available - is able to be used or can easily be bought or found
Consistent – always having the same beliefs, behavior, quality
Defer (v) - to delay something until a later time
Emergency - an unexpected and dangerous situation that must be dealt with immediately
Evidence - facts, objects, or signs that make you believe that something exists or is true
Suggest (v) - to make someone think that a particular thing is true
Survive (v) - not to die from an illness, accident
Transmit (v) - to send or pass something from one person, place or thing to another

Language of medicine: SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

AIDS, avine influenza, measles, SARS, smallpox are all viral infections. Some often have been known for a long time, some are new. Which ones are new? What system is affected?

1. Arrange the words and phrases to make questions:

1. What, I, I, should do, if, have recently returned, feel, from south east Asia, the far east, or Canada, and, unwell?

2. What, Acute, Severe, Respiratory Syndrome, (SARS), is?

3. What, take, infection control measures, dentists, should?

4. Do, know, infection, what, you, is causing, this?

5. How, does, spread, SARS, fast?

6. Is, for, vaccine, there, this, a?

7. Why, you, are, so worried, this, about, infection?

8. There, is, test, for, a, SARS?

9. What, treatment, the, for, is, SARS?

10. Could, bioterrorism, result, this, from?

11. How, the SARS coronavirus, infectious, on, remain, can, long, surfaces?

12. Are, the, what, symptoms, SARS, of?

13. How, SARS, is, contagious?

14. Can, catch, I, from, from, goods imported, SARS, SARS affected areas?

15. Are, making, any risks, there, donation, of, a, blood?

2. Read the interview with a WHO authority. Match the questions from Ex. 1 and the answers:

Q:

A: SARS is a serious respiratory illness which has recently been reported in parts of east and south east Asia, and in Toronto, Canada.

Q:

A: The main symptoms of SARS are high fever, cough, shortness of breath, or breathing difficulties. Changes in chest X-rays indicative of pneumonia also occur.

Q:

A: Based on currently available evidence, close contact with an infected person poses the highest risk of infection. To date, the majority of cases have occurred in hospital workers who have cared for SARS patients and the close family members of these patients.

Q:

A: According to the World Health Organization, the disease is caused by SARS coronavirus.

Q:

A: Antibiotics and antiviral drugs are being used to treat the illness, but there is no specific treatment.

Q:

A: The incubation period of SARS is short, around two to seven days (maximum ten days).

Q:

A: No, a vaccine is not available.

Q:

A: SARS can be a very serious condition. Not all people suffering from SARS have developed pneumonia, but in those who have the risk of dying is about 15%. Also, as we have seen in Canada, if the infection gets into a hospital, it can spread very quickly.

Q:

A: Tests to detect the SARS coronavirus are not sufficiently sensitive to identify the virus. A positive test for the SARS coronavirus means that the patient is, or recently was, infected with the virus. Having a negative test for the SARS coronavirus does not, however, mean that a person is definitely not infected.

Q:

A: There is no indication that SARS is linked to bioterrorism.

Q:

A: If you have recently returned from a SARS affected area, and if you have had any SARS symptoms within 10 days of leaving the affected area, please phone your GP.

Q:

A: Dentists should avoid treatment of individuals who have symptoms consistent with SARS, when these symptoms have started within 10 days of departing from a SARS affected area. Where emergency dental treatment is considered necessary, usual procedures for emergency care should be followed

Q:

A: There is no evidence at present that SARS can be transmitted by blood transfusion. However, since coronavirus can be found in plasma, certain individuals should defer giving blood to prevent the theoretical risk of transmitting SARS through blood donation.

Q:

A: To date there is no evidence to suggest that contact with goods, products or animals shipped from SARS-affected areas has been the source of SARS infection in humans.

Q:

A: Recent results have suggested that under laboratory conditions the SARS coronavirus can survive on untreated plastic surfaces for two days, in urine for at least two days, and in diarrhea for as long as four days.

(From *FAQ's*
ABOUT SEVERE ACUTE RESPIRATORY SYNDROME)

3. Is it true that:

- SARS is dangerous only to the people from the far east?
- SARS resembles flu?
- the cases of the disease are confined to separate hospitals?
- SARS is a hereditary disease?

- specific antiviral drugs for SARS have recently been created?
- SARS is a fatal disease?
- fifteen percent of the cases develop pneumonia?
- negative results of the test prove the absence of the infection?
- all people who come back from SARS areas become ill within 10 days?
- first cases of SARS resulted from blood transfusion?
- goods from SARS-affected areas are not infectious?
- the disease can be transmitted by air droplets, urine, feces?

4. Study the combining forms:

rhino – nose
naso - nose
pharyngo – throat
conio - dust
anthraco – coal
pneumo – lung
pneumono - lung
pulmono – lung

pyo – pus
hemo - blood
-phonia - voice
–ptysis – spitting
–pnea – breathing
-thorax - chest
dys- bad
a- no

Analyze the words:

Hemoptysis
Dyspnea
Eupnea
Apnea
Rhinitis
Pharyngitis
Alveolitis
Pneumoconiosis
Pulmonology
Pulmonologist
Hemothorax
Hydrothorax
Pyothorax
Nasopharyngitis
Anthracosis
Pulmonectomy
Bronchoscope
Pulmonary
Bronchiolitis
Hemoptysis

5. Write a brief summary about SARS. Use the plan:

Definition
Causative agent
Transmission

Incubation period
Symptoms and signs
Diagnosis
Treatment
Prevention

6. Use the data and write a case presentation:

Name ***Alan Brown***	Age ***42***	Sex ***M***
Present complaints	***fever 38 ℃, cough, shortness of breath for 3 days***	
Points of note	***came back from China 7 days ago***	
Tests	***chest x-ray: signs of pneumonia***	

7. Arrange the letters to make words denoting signs and symptoms:

EEVFR, EEAAHHCD, AAEUNS, CHGUA, AEYDNPS, IIOAMNS, AARRDHIE, AEESSDFN, AEIUCDJN, RRHHMGEEOA

Prompts: high body temperature, a pain that lasts several minutes or hours, it may cover the whole head, one side of it, or sometimes the front or back of the head, stomach discomfort with the feeling of a need to vomit, an attempt to expel something causing irritation in the respiratory tract, labored breathing, inability to sleep, watery loose bowel movement, complete or partial loss of hearing, increase in bile pigment in blood causing yellow tinge to skin, membranes and eyes, loss of blood from a blood vessel

Socializing: SPEAKING TO THE PATIENT

8. Give your advice to a dentist about how to reduce the risk of catching SARS.
Use: **You should.., You shouldn't…, I advise you …, Don't …, You'll have to …**

9. What questions can be asked about duration, onset, accompanying conditions, relieving/aggravating factors, causes.

10. Work in p airs. Act as a doctor and a patient with bronchitis (See Appendix). Fill in the form:

Name
Age
Occupation
Address
Smoking
Present complaints
Onset
Accompanying conditions
Relieving/aggravating factors
Causes

11. Make an assumption about the diagnosis. Tell the patients about the examination chest (x-ray) you are going to have done.

12. Explain the diagnosis using lay words and simple definitions:

E.g.
You may have ….
Bronchitis is inflammation of …
Bronchus is ….

1. Advise you patient on the treatment.

14. Your patients has acute bronchitis. Describe the case to you colleague and ask him/her for advice about the treatments. Use ***: What would you do? What do you think I should do?*** *(See* ***Functions****).*

15. Advise your colleague on the treatment of the patient.

Basic terminology

Antibiotic – a substance produced from a microorganism, that destroys or inhibits the growth of other microorganisms
Emergency treatment -
Incubation period – the interval between the exposure to an infection and the appearance of the first symptoms
Infection – invasion of the body by harmful organisms, such as bacteria, fungi, protozoa, viruses
Pneumonia – inflammation of the lung caused by bacteria, in which the air sacs become filled with inflammatory cells and the lung becomes solid
Transfusion – the injection of a volume of blood obtained from a healthy person (the donor) into the circulation of a patient (the recipient)

Unit 26

KEY WORDS

Adult - fully grown or developed
At least - not less than a particular number
Bite (v) - to cut or crush something with your teeth
Cease - to stop doing something or stop happening
Eliminate (v) - to completely get rid of something that is unnecessary or unwanted
Expose (v) - to show something that is usually covered
Fatal - resulting in someone's death
Needle - a very thing, pointed steel tube at the end of a syringe, which is pushed into your skin to put a drug or medicine into your body
Share (v) - to have or use something that other people also use
Spread (v) - to affect more and more people or affect a larger area
Unique - being the only one of this kind

Language of medicine: VIRAL HEPATITIS

1. Do you know the meaning of the terms ***Etiology, Epidemiology, Course, Symptoms, Prognosis, Prophylaxis****?*

2. Match each term and its definition:

- The study of the distribution and determinants of health-related states in human and other animal populations.
- Prevention of disease or of a process that can lead to disease.
- A forecast of the probable course and/or outcome of a disease.
- The science and study of the causes of disease and their mode of operation.
- Any morbid phenomenon or departure from the normal in structure, function, or sensation, experienced by the patient and indicative of disease.
- The usual or natural way that something happens, develops.

3. Read the text quickly and divide it into paragraphs: **Etiology**, **Epidemiology**, **Course, Symptoms and Signs, Prognosis, Prophylaxis**

ACUTE VIRAL HEPATITIS

Acute viral hepatitis is a diffuse liver inflammation caused by specific viruses. At least six viruses are responsible: hepatitis A virus (HAV), hepatitis B virus (HBV), hepatitis D virus (HDV), hepatitis C virus (HCV), hepatitis E virus (HEV), hepatitis G virus (HGV). The role of HGV and other unidentified agents in cases of unexplained hepatitis remains unclear. HAV spreads primarily by fecal-oral contact; blood and secretions may also be infectious. The virus can be transmitted from patient to patient during the incubation period; this usually ceases a few days after symptoms begin. Waterborne and food-borne epidemics occur, especially in underdeveloped countries. In some countries, > 75% of adults have been exposed. HBV is often transmitted by contaminated blood or blood products. Screening of donor blood for HB has diminished post-transfusion HBV infection, but transmission via needles shared by drug abusers remains an important problem. The role of transmission by insect bites is unclear. Many cases of acute hepatitis B occur without a

known source. HBV is associated with a wide spectrum of liver diseases, from a carrier state to acute hepatitis, chronic hepatitis, cirrhosis, and hepatocellular carcinoma. HCV causes at least 80% of posttransfusion hepatitis cases and a substantial proportion of sporadic acute hepatitis cases. It is also found in many cases of chronic hepatitis, cirrhosis, and hepatocellular carcinoma. Infection is most commonly acquired via blood, either from transfusion or IV drug use. HDV is a unique virus that can replicate only in the presence of HBV, never alone. It occurs as a co-infection with acute hepatitis B or as a superinfection in chronic hepatitis B. HEV is responsible for occasional epidemics of acute hepatitis in underdeveloped areas; these epidemics are similar to HAV epidemics. Some cases of acute hepatitis are caused by HGV or other unknown non-A-E agents. HAV infection has an incubation period of about 2 to 6 wk; HBV infection, about 6 to 25 wk; and HCV infection, about 3 to 16 wk. All ages are affected, although HAV infection is most common in children and young adults. Hepatitis varies from a minor flu-like illness to fatal liver failure, depending on the patient's immune response and other poorly understood factors. The prodromal phase usually begins suddenly with profound anorexia (distaste for cigarettes is a characteristic early manifestation), malaise, nausea and vomiting, and often fever. Eruptions and arthralgias occasionally occur, especially in HBV infection. After 3 to 10 days, the urine darkens, which is followed by jaundice. Jaundice usually peaks within 1 to 2 wk, then fades during a 2-to 4-wk recovery phase. The liver is usually enlarged and often tender, but the edge remains soft and smooth. Mild splenomegaly is present in some patients. Hepatitis usually resolves spontaneously after 4 to 8 wk. A favorable prognosis is less certain in HBV than in HAV infection, especially in the elderly and after transfusion when mortality may reach 10 to 15%. In hepatitis A chronic disease or cirrhosis do not develop. Chronicity occurs in 5 to 10% of HBV infections. Chronic HBV infection can lead to carcinoma. Hepatitis C has up to 75 to 80% incidence of chronicity, even though the initial illness usually seems mild. The resultant chronic hepatitis is usually benign, but cirrhosis develops in at least 20% of patients. Hepatocellular carcinoma is a risk in HCV induced cirrhosis, although tumors may appear in noncirrhotic cases of chronic infection. Personal hygiene helps to prevent spread of HAV. Isolation of patients does little to prevent spread of HAV and is of no value in HBV or HCV disease. Screening of donors has dramatically decreased, but has not eliminated, hepatitis B and C. Vaccination against HBV gives a dramatic reduction (about 90%) in the incidence of HBV infection. But vaccination policies are influenced by high cost. Large-scale vaccination would decrease the worldwide reservoir of HBV carriers and the high prevalence of hepatocellular carcinoma in highly endemic geographic areas. Vaccine against HAV has recently become available; it is safe and effective and provides prolonged protection (probably for several years). Travelers to highly endemic areas should therefore receive the vaccine. There is no vaccine against HCV.

(From *THE MERCK MANUAL*)

4. Read the text more thoroughly and fill in the chart:

Hepatitis	A					
Virus		HBV				
Transmission				Needle	Water	Blood?
Chronicity				Yes	No	Yes
Cirrhosis				Yes	No	?
Cancer				Yes	No	?
Incubation period				?	?	?
Epidemics				No	Yes	?
Prevention					Personal hygiene	?
Vaccinations					No	

5. What do these figures refer to:

Six, 75 %, 2-6 weeks, 3-10 days, 4-8 weeks, 5-10%, 90 %.

6. Choose the sentence that better corresponds to the statement from the text:

1). **Waterborne and food-borne epidemics occur, especially in underdeveloped countries.**
a) In poor countries the disease can be transmitted with food and water.
b) The disease is transmitted with food and water only in poor countries.
c) Poor countries need more food and water to prevent epidemics.

2). **In some countries, > 75% of adults have been exposed.**
a) In some countries, > 75% of adults witnessed hepatitis epidemics.
b) In some countries, > 75% of adults come from the families with hepatitis.
c) In some countries, > 75% of adults have been ill with hepatitis.

3). **The role of transmission by insect bites is unclear.**
a) In some cases the disease is transmitted by insect bites.
b) The specialists do not know exactly if insects carry the disease.
c) A person can be infected with hepatitis if the place of the insect bite on the skin is not clean.

4). **HBV is associated with a wide spectrum of liver diseases, from a subclinical carrier state to acute hepatitis, chronic hepatitis, cirrhosis, and hepatocellular carcinoma.**
a) HBV infection is found in patients with a number of liver diseases, including chronic hepatitis, cirrhosis, and hepatocellular carcinoma.
b) HBV infection is caused by a number of liver diseases, including chronic hepatitis, cirrhosis, and hepatocellular carcinoma.
c) A number of liver diseases, including chronic hepatitis, cirrhosis, and hepatocellular carcinoma are present before HBV infection.

5). **A favorable prognosis is less certain in HBV than in HAV infection.**
a) A favorable prognosis is more characteristic for HBV infection.
b) The specialists are not certain about the prognosis of HAV and HBV infection.
c) The outcome of HAV infection is more favorable.

6). **Hepatitis C has up to 75 to 80% incidence of chronicity, even though the initial illness usually seems mild.**
a) In 75-80% of cases hepatitis C is a mild disease.
b) 75-80 % of hepatitis C cases become a chronic disease.
c) Chronicity of hepatitis C depends on the initial stages of the disease.

7). **Large-scale vaccination would dramatically decrease the worldwide reservoir of HBV carriers and the high prevalence of hepatocellular carcinoma in highly endemic geographic areas.**
a) Hepatocellular carcinoma can be treated by vaccination.
b) Vaccination of population can reduce the number of people with HBV infection.
c) It is impossible to reduce the number of HBV infection and resultant liver cancer by preventive vaccinations.

7. Answer the questions:

1). Is six the exact number of viruses causing viral hepatitis?

2). When are the contacts with hepatitis A patients especially dangerous?

3). Why are vaccinations against hepatitis B important?

4). Why are vaccinations against hepatitis B not made to everybody who needs them?

5). Why has screening of donors reduced the number of hepatitis B cases?

6). What can you advise to a friend who is going to a country with high incidence of hepatitis A?

7). Why is it important to know the virus, which has caused hepatitis?

8. Write out symptoms and signs of hepatitis.

9. Find the terms with the following meaning:

enlargement of the spleen
inflammation of the liver
cancer tumor
loss of appetite
pain in the joints
pertaining to the mouth

10. Use the plan and describe one of the types of hepatitis:

1). Etiology.
2). Epidemiology.
3). Course.
4). Symptoms and Signs.
5). Prognosis.
6). Prevention

Socializing: SPEAKING TO A PATIENT

11. What questions were asked to obtain the information:

NAME ***Alan***		SURNAME ***Brown***
AGE ***20***	SEX ***M***	MARRITAL STATUS ***S***
OCCUPATION ***Student***		
PRESENT COMPLAINT ***loss of appetite, malaise, nausea, vomiting, slight fever***		
OBJECTIVE EXAMINATION ***liver - enlarged, tender, the edge - soft and smooth***		
POINTS OF NOTE ***came back from China 7 days ago***		
INVESTIGATIONS ***aminotransferase: AST - 500 IU/l, ALT - 2000 IU/L, hyperbilirubinemia, anti HA immunoglobulins - +ve***		
DIAGNOSIS ***hepatitis A***		

12. Act as a doctor and a patient. Ask the questions. Explain the patient the diagnosis using simple definitions. Tell about the necessary examinations.

13. Write a case presentation using the information of Ex. 11:

Patient _____, a _____ year old _____ complained of _____. He noticed _____ and _____ 3 _____. On physical examination _____. The laboratory findings showed _____, blood tests are _____ for anti HA immunoglobulins. The diagnosis of _____ was made.

14. Your friend is going to a country with high incidence of hepatitis A. Advise on the disease prevention.

Basic terminology

Anorexia - diminished appetite; aversion to food
Carrier - a person or animal that harbors a specific infectious agent in the absence of discernible clinical disease and serves as a potential source of infection
Cirrhosis - progressive disease of the liver characterized by diffuse damage to hepatic parenchymal cells, with nodular regeneration, fibrosis, and disturbance of normal architecture
Hepatitis - inflammation of the liver; usually from a viral infection, but sometimes from toxic agents
Jaundice - a yellowish staining of the integument, sclerae, and deeper tissues and the excretions with bile pigments, which are increased in the plasma
Prodromal - relating to a prodrome
Prodrome - an early or premonitory symptom of a disease
Screening - examination of a group of usually asymptomatic individuals to detect those with a high probability of having a given disease, typically by means of an inexpensive diagnostic test
Tender - sensitive or painful as a result of pressure or contact that is not sufficient to cause discomfort in normal tissues
Vaccination - the act of administering a vaccine

Unit 27

KEY WORDS

Consequence - something that happens as a result of a particular action or situation
Disorder - an illness that prevents par of your body work properly
Gallstone - a hard stone which can form in the gallbladder
Obstruction - something that blocks passage
Probability - something that is likely to happen or exist
Radiate (v) - to spread out from a central point
Relate (v) - to show or prove connection between two things
Removal - the act of taking something away

Language of medicine: CHOLELITHIASIS

1. Read the text. Is the following mentioned in it: **Prevention; Symptoms and Signs; Diagnosis; Treatment; Epidemiology; Pathophysiology; Complications.**

CHOLELITHIASIS

Most clinical disorders of the extrahepatic biliary tract are related to gallstones. In the USA, 20% of persons over 65 have gallstones. Factors that increase the probability of gallstones include female sex, obesity, increased age, a Western diet, a positive family history.

The clinical consequences of gallstone formation are variable. Most patients remain asymptomatic for long periods. Stones may travel through the duct with or without symptoms of obstruction. The duct obstruction results in pain, persistent obstruction usually produces inflammation and acute cholecystitis. Biliary colic is constant, the pain rises progressively then falls gradually. Nausea and vomiting are frequent. Fever and chills are absent, when the colic is uncomplicated. Pain most often occurs in the epigastrium or right upper portion of the abdomen. It radiates to the shoulder blade. Biliary colic recurs with irregular, pain-free intervals of days and months.

Ultrasonography is the method of choice for diagnosing gallbladder calculi. Cholecystography is also used successfully.

Cholecystectomy is indicated in symptomatic patients. The standard operation is gallbladder removal through an incision (open cholecystectomy). The procedure is relatively safe. Since its introduction in 1988, laparoscopic cholecystectomy has been the treatment of choice because of shorter postoperative hospital stay, decreased postoperative discomfort, and improved cosmetic results.

(From *THE MERCK MANUAL*)

2. Is the following information true or false. Make the false statements true.

- Stones in the gallbladder are responsible for the majority of problems with extrahepatic biliary ducts.
- Gallstones are more frequent in men.
- Increased weight is a risk factor for gallstones.

- Heredity does not play a role in cholelithiasis.
- In many people gallstones does not develop any symptoms.
- When a stone prevents bile passage through the bile duct, this causes pain.
- Cholecystitis is a complication of cholelithiasis.
- Fever commonly accompanies the colic.
- The pain is also felt in the scapula.
- Biliary colic lasts for days and months.
- Laparoscopic cholecystectomy was introduced into practice in 1988.
- Laparoscopic cholecystomy is popular because after this operation the patients spend less time in hospital.

Work in pairs. Agree or disagree with the statements (See APPENDIX).

3. Write out symptoms mentioned in the text.

4. Find the terms with the following meaning:

disease of stones in the gallbladder
surgical removal of the gallbladder
x-ray study of the gallbladder
inflammation of the gallbladder

5. Continue the statements:

Gallstones are responsible for …
Increased weight, bile stones in the family, increased age are ….
The majority of patients with gallstones do not …
Pain is caused by …
Inflammation and acute cholecystitis develop …
The patient with biliary colic complains of …
The pain is felt …
Ultrasonography is used …
The disease is treated with …

6. Build the terms:

Surgical removal of the stomach _____; surgical removal of the appendix _____; surgical removal of the tonsils _____; x-ray study of the bronchi _____; inflammation of the appendix _____; inflammation of the liver _____; inflammation of the duodenum _____; inflammation of the tonsils _____; x-ray study of the veins _____.

7 .What questions were asked:

1. _____
About 20 % of persons over 65.

2. _____
They are female gender, overweight, increased age, diet and gallstones in the family members.

3. _____
No, they may be present in the bile ducts without any symptoms.

4. _____
They are pain, nausea, vomiting,

5. _____
This is usually felt over the stomach and in the right upper quadrant.

6. _____
It can be felt in the scapula.

7. _____
Ultrasonography and cholecystography

8. _____
It's treated surgically.

8. Read the case history and use the necessary forms of the verbs:

A seventy-nine-year-old white male with cholelithiasis (admit) to the medical center for an emergency surgery. Cholecystography (show) a stone in the common bile duct. Six weeks after surgery an attempt (make) to remove the impacted stone. This (be) unsuccessful and the patient (refer) to another hospital. Another x-ray study (show) complete blockage of the common bile duct. No contrast medium (enter) the duodenum and a diagnosis of an impacted common duct stone (make). Simple manipulations (fail) to dislodge the stone and no further attempt (make) to remove it. A series of smaller catheters (use) and some drainage space (develop). Antibiotics (prescribe) to prevent pancreatitis.

Socializing: SPEAKING TO THE PATIENT

9 .Which of the questions can be asked in case of cholecystitis:

What seems to be the problem?
How long have the pain been bothering you?
When did it start?
Where does it hurt?
Does it stay in one place or does it go anywhere else?
Is there anything else you feel at the same time?
What's the pain like?
Can you describe the pain?
Is the pain continuous or does it come and go?
What kind of pain is it?

Is there anything that makes it worse?
Does lying down help the pain?
Have you ever had such pain before?
What seems to bring it on?
Does the pain come on at any particular time?
What about coughs or shortness of breath?
What's your appetite like?
Do you suffer from double vision?
Does this disease run in your family?
Do you feel nausea?
How many cigarettes do you smoke a day?

10. You suspect that your patient complaining of pain in the abdomen has cholecystitis. What questions can be asked to him about the onset, duration, location, character of the pain, accompanying conditions, aggravating conditions?

11. Act as a doctor and a patient with cholelithiasis (See APPENDIX).

Basic terminology

Asymptomatic - without symptoms, or producing no symptoms
Calculus - a concretion formed in any part of the body, most commonly in the passages of the biliary and urinary tracts
Cholecystectomy - surgical removal of the gallbladder
Cholecystitis - inflammation of the gallbladder
Cholelithiasis - presence of concretions in the gallbladder or bile ducts
Colic - spasmodic pains in the abdomen
Epigastrium - the region of the abdomen located between the costal margins and the subcostal plane
Incision - a cut; a surgical wound; a division of the soft parts made with a knife
Laparoscopic - examination of the contents of the peritoneum with a laparoscope passed through the abdominal wall
Ultrasonography - the location, measurement, or delineation of deep structures by measuring the reflection or transmission of ultrasonic waves

Unit 28

Key words

Avoid (v) - to deliberately not to do something because its is dangerous
Cluster - a group of things of the same kind that are very close together
Consume (v) - (formal) to eat or drink something
Cruise - a holiday on a large ship, a journey on a boat for pleasure
Dine (v) - (formal) to eat dinner
Elaborate (v) - to give more details or new information about something
Hunger - lack of food especially for a long period of time
Ingest (v) – to eat
Peel (v) - to remove the skin from fruit or vegetable
Properly - correctly
Vendor - someone who cells things

What signs suggest gastrointestinal disorders?

1. Supply the words to the definitions:

- The feeling that someone is about to vomit;
- The reflex action of ejecting the contents of the stomach through the mouth;
- Burning sensations, either in the back of the throat or in the left side of the chest, usually occurs after eating
- Painful spasmodic contraction;
- Contraction of any muscle that is sudden and involuntary;
- Offensive breath;
- Frequent bowel evacuation or the passage of abnormally soft or liquid feces;
- Failure of bowels to excrete residue at proper intervals;
- An abdominal gurgle due to movement of fluid and gas in the intestine
- Loss of appetite
- Severe loss of blood from a blood vessel.

2. Work in two groups. Group A.: read about traveler's diarrhea; group B.: read about staphylococcal food poisoning. Fill in your line of the table with the information from the text.

Disease	Etiology	Symptoms and signs	Diagnosis	Treatment	Prevention
Traveler's diarrhea	*several bacteria, viruses, or, less commonly, parasites*				
Staphylococcal food poisoning					

TRAVELER'S DIARRHEA

Traveler's diarrhea may be caused by any of several bacteria, viruses, or, less commonly, parasites. Infection is common among people traveling to developing countries. Norovirus infection has been a particular problem on some cruise ships.

Both food and water can be the source of infection. Travelers who avoid drinking local water may still become infected by brushing their teeth with an improperly rinsed toothbrush, drinking bottled drinks with ice made from local water, or eating food that is improperly washed with local water. Persons taking medicines that decrease stomach acid are at risk for more severe illness.

Nausea, vomiting, borborygmi, abdominal cramps, and diarrhea begin 12 to 72 h after ingesting contaminated food or water. Severity is variable. Some people develop fever and myalgias. Most cases are mild and self-limited, although dehydration can occur, especially in warm climates.

Specific diagnostic measures are usually not necessary. However, fever, severe abdominal pain, and bloody diarrhea suggest more serious disease and should prompt immediate evaluation.

The mainstay of treatment is fluid replacement and an antimotility agent. Antimotility agents are contraindicated in patients with fever or bloody stools and in children < 2 yr.

Generally, antibiotics are not necessary for mild diarrhea. In patients with moderate to severe diarrhea (≥ 3 loose stools over 8 h), antibiotics are given, especially if vomiting, abdominal cramps, fever, or bloody stools are present.

Travelers should dine at restaurants with a reputation for safety and avoid foods and beverages from street vendors. They should consume only cooked foods that are still steaming hot, fruit that can be peeled, and carbonated beverages without ice served in sealed bottles; uncooked vegetables should be avoided. Buffets and fast food restaurants pose an increased risk.

Prophylactic antibiotics are effective in preventing diarrhea, but because of adverse effects and development of resistance, they should probably be reserved for immunocompromised patients.

STAPHYLOCOCCAL FOOD POISONING

Staphylococcal food poisoning is caused by ingesting a heat-stable staphylococcal enterotoxin. Food can be contaminated by staphylococcal carriers or people with active skin infections. In food that is incompletely cooked or left at room temperature, staphylococci reproduce and elaborate enterotoxin. Many foods can serve as growth media, and despite contamination, they have a normal taste and odor.

Severe nausea and vomiting begin 2 to 8 h after ingestion, typically followed by abdominal cramps and diarrhea, occasionally headache and fever. The attack is brief, often lasting < 12 h.

Diagnosis is by Gram stain and culture of infected material. Staphylococcal food poisoning is usually suspected because of case clustering (eg, within a family, attendees of a social gathering, or customers of a restaurant). Confirmation (typically by the health department) entails isolating staphylococci from suspected food and sometimes testing for enterotoxins.

Treatment of staphylococcal intoxications, the most serious of which is toxic shock syndrome, involves intensive support (including vasopressors and respiratory assistance), electrolyte balancing, and antimicrobials. .

Antibiotic resistance is common in staphylococci. Staphylococci often produce an enzyme that inactivates several antibiotics.

Staphylococcal food poisoning can be prevented by proper food preparation. Patients with staphylococcal skin infections should not handle food, and food should be consumed immediately or refrigerated and not kept at room temperature.

3. In your text, find the answers to the questions:

Who suffers from these disease?

What microorganisms are responsible for this disease?

What is the source of infection?

What are the signs of the disease?

When do the symptoms appear?

Does the disease develop in groups of people?

Is it necessary to confirm the diagnosis using specific tests?

What medication is used?

How can the disease be prevented?

4. Ask a student from the other group about the disease and complete the other line of the table.

5. Compare the two diseases. Use ***both, both … and, neither … nor*** *for similarities****, but, in contrast, in contrast to, as opposed to*** *for differences.*

6. Read the other text. Is it true that:

- Various types of microorganisms are responsible for traveler's diarrhea.
- Sstaphylococcal food poisoning is caused by staphylococci.
- Traveler's diarrhea manifests by nausea, vomiting, diarrhea, pain in the abdomen.
- The signs of staphylococcal food poisoning are nausea, vomiting, diarrhea, pain the in the abdomen.
- Traveler's diarrhea is an air-borne infection.
- Staphylococcal food poisoning is a water-borne infection.
- Antibiotics are necessary in case of traveler's diarrhea.
- Antibiotics are indicated in staphylococcal food poisoning.
- Proper food preparation helps to avoid traveler's diarrhea/
- Fuzzy drinks prevent traveler's diarrhea.

Work in pairs. Act agreement and disagreement.

7. Match a phrase in A and a phrase in B:

A	B
Traveler's diarrhea is common in persons	is usually recommended.
For severe diarrhea	provide media where staphylococci grow and produce enterotoxin.
A 3-day course of treatment	is usually abrupt.
Symptoms of staphylococcal food poisoning	traveling to some areas of Mexico, Latin America, Middle east, Asia, Africa.
If vomiting is severe	should not prepare food until their lesions have healed.
Milk, processed meat and fish, cream-filled pastry	antiemetic may be helpful.
The onset of the disease	are caused by staphylococcal enterotoxin.
Persons with furunculosis	antibiotics may be indicated.

8. Study the combining forms:

-clysis – washing
- ectasia – stretching
-emesis – vomiting
- rrhaphy – suture
- rrhexis – rapture
- pepsia – digestion
- phagia – eating
celio - abdomen

Analyze the words:

Polyphagia
Celiac
Appendicitis
Gastritis
Dyspepsia
Aphagia
Enterorrhexis
Gastroenteritis
Dysentery
Dysphagia
Gastrectomy
Appendectomy
Gastrorrhaphy
Enteric
Hematemesis
Emetic
Gastrectasia
Enteroclysis
Hyperemesis

8. Study the chart and describe the patient's complaints:

Verbs which go with **nausea:**
Experience, feel, complain of

Verbs which go with **diarrhea:**
Have, suffer from, develop, get

Verbs which go with **symptom:**
Display, exhibit, experience, have, present with, report, show

Disease	***Symptoms and signs***
Gastroenteritis	Anorexia, nausea, vomiting, abdominal cramps
Botulism	Nausea, vomiting, abdominal cramps, diarrhea, neurologic symptoms
Intestinal flu	Watery diarrhea, vomiting, fever
Mushroom poisoning	Salivation, sweating, vomiting, abdominal cramps, diarrhea, confusion
Dysentery	Fever, anorexia, nausea, vomiting, diarrhea, abdominal pain
Cholera	Watery diarrhea, vomiting, weakness
Enteritis	Bloody, watery diarrhea, fever, abdominal pain

Socializing: SPEAKING TO THE PATIENT

9. You are talking to a patient. Ask him:

- what his problem is;
- how long he/she has had it;
- when it/they started;
- where the problem is;
- what kind of pain it is;
- if it is continuous;
- if anything makes it better;
- what caused this;
- if there are other problems;
- if he/she has problem with his/her stools;
- what's his/her appetite like;
- if he/she has noticed any blood in his/her stools.

10. Work in pairs. Study the case notes and have a talk with the patient. Explain him the diagnosis and recommend the treatment:

Surname *Schmidt*		**First name** *Peter*
Age *21*	**Sex** *M*	**Marital status** *S*
Occupation *student*		
Present complaint *watery diarrhea without any blood, started yesterday, Also c/o vomiting, abdominal cramps, fever about 39° C, headache, myalgia*		
Points of note *similar disease in his roommate*		
Diagnosis *viral gastroenteritis*		
Management *bed rest, oral fluids*		

11. Study the case notes and correct the mistakes in the case presentation:

A 20-year old woman was admitted to the hospital of the university because of severe CVS symptoms. The patient gave a history of constipation, anorexia which appeared three days after visiting her friend living in the country.

On examination, she has elevated blood pressure. There is also sacral edema.

Heart failure was suspected because similar complaints were noted in the people who were traveling by the same bus.

The diagnosis was confirmed by demonstrating sugar in the urine. The source was identified by finding botulinum toxin in suspect food.

She was performed electrocardiography. The patient was admitted to the hospital for close monitoring. She was given diuretics.

Surname		**First name**
Age 30	**Sex** *M*	**Marital status**
Occupation		
Present complaint *nausea, vomiting, abdominal cramps, diarrhea, dryness in the mouth and visual problems began about 20 hours after eating shellfish in a restaurant*		
Points of note *similar complaints in the people who participated in the party*		
O/E **CNS** *diplopia, ptosis, dysarthria, dysphagia, dysphonia*		
Diagnosis *foodborne botulism*		
Investigations *Blood serum +ve for botulinim toxin*		
Management *Gastric lavage with administration of activated charcoal* *Hospitalization* *Botulism antitoxin*		

12. Write a case presentation using the information of Ex. 10.

Basic terms

Airborne - carried by air
Antibiotic - an antimicrobial agent used to treat infections
Borborygmos (*pl.* **borborygmi)** - an audible abdominal sound produced by hyperactive intestinal peristalsis
Charcoal - a general-purpose antidote and a powerful pharmaceutic adsorbent
Cramp - a spasmodic and often painful contraction of one or more muscles
Diarrhea - the frequent passage of loose, watery stools
Foodborne - carried by food
Infection - a disease caused by the invasion of the body by pathogenic microorganisms
Lavage - the process of washing out an organ, e.g. bowel, for therapeutic purposes
Motility - condition of being capable of movement
Nausea - a sensation often leading to the urge to vomit
Vomiting - forcible voluntary or involuntary emptying of the stomach contents through the mouth
Waterborne - carried by water, such as a waterborne epidemic of typhoid fever

Unit 29

KEY WORDS

Incapacitate (v) - make somebody too ill or weak
Insomnia - inability to sleep or to remain asleep throughout the night
Irritable - very sensitive and sore
Precede (v) - to happen or exist before something or someone
Resolve (v) – to disappear
Throb – a low, strong, regular beat or sensation
Tingle (v) - to have slight uncomfortable feeling

Language of Medicine: MIGRAINE

Have you ever had a headache?
When was it?
What was it like?
What caused it?
What did you do to stop it?

1. These are the words which will appear in the text:

Accompany, ages, attacks, begin, cause, common, computed tomography, confirm, depressed, diagnose, diagnosis, disappear, drugs, exclude, experience, families; frequently, head, irritable, magnetic resonance imaging, make worse, nausea, pain, periodically, prevent, procedure, recur, relieve, restless, relatives, severe, stop, treatment, trigger, understood, vomiting, weakness.

In which of the following paragraphs can they appear?

Epidemiology
Etiology
Symptoms and signs
Course and prognosis
Diagnosis
Treatment

2. Read the text and divide it into paragraphs using the plan (Ex. 1):

MIGRAINE

Migraines usually begin between the ages of 10 and 40. In most people, migraines recur periodically, but they usually become significantly less severe or resolve entirely after age 50 or 60. Migraines are 3 times more common among women than among men. Migraines tend to run in families; more than half of the people who have migraines have close relatives who also have them. The cause of migraines is not well understood. Estrogen, the main female hormone, appears to trigger migraines, possibly explaining why migraines are more common among women. Oral contraceptives (which contain estrogen) and estrogen replacement therapy often make migraines worse. Insomnia, changes in barometric pressure, and hunger may also trigger migraines. In a migraine, throbbing pain is typically felt on one side of the head. The pain may be moderate but is often severe and incapacitating. Physical activity, light, sounds, or smells may make the headache worse. The headache is often accompanied by nausea, sometimes with vomiting. A migraine

attack often involves more than a headache. It may include a prodrome, an aura, and a postdrome. The prodrome is a change in mood or behavior, which can precede the rest of the migraine by 24 hours. People may become depressed, irritable, or restless. Nausea or loss of appetite may also occur. About 25% of people experience an aura. The aura involves temporary, reversible disturbances in vision, sensation, balance, movement, or speech. Commonly, people see flashing lights or develop a blind spot with flickering edges. Less commonly, people experience tingling sensations, loss of balance, weakness in an arm or a leg, or difficulty talking. About 25% of people experience a postdrome, which involves changes in mood and behavior after the migraine. Migraine attacks may occur frequently for a long period of time but then may disappear for many weeks, months, or even years. Migraines are diagnosed on the basis of symptoms. No procedure can confirm the diagnosis. If headaches have developed recently or if the pattern of symptoms has changed, computed tomography or magnetic resonance imaging of the head is performed to exclude other disorders. Treatment of migraine headaches involves three types of drugs: drugs to prevent migraines, drugs to stop (abort) a migraine as it is beginning, and drugs to relieve pain.

(From *THE MERCK MANUAL*)

*3. Change **ONE** word to correct the statement:*

1). Migraines occur more frequently in men.
2). Migraines are not typical for the ages of 10-40.
3). Male hormones may be responsible for migraines.
4). A migraine pain is typically bilateral
5).The mechanism for migraines is well defined.
6). Migraine may be followed by nausea, vomiting, loss of appetite.
7). A postdrome is the signs preceding the attack.
8).The diagnosis of migraine is made on the basis of CT findings.
9). Three types of procedures are used to treat migraine headaches.

4. What questions can be asked to fill in the gaps:

a) Migraine headache usually lasts ... hours.

_____

b) Migraine headache is associated with …

_____

c) Migraines usually begin between ages …

_____

d) The triggers of migraine may include …

_____

e) Migraine may be preceded by ….

_____

f) Migraine may be associated with …

_____

g) Treatment depends on ….

_____

h) Treatment may be classified as …

_____

i) Long-term prophylaxis should be considered if ….

_____

Work in pairs. Ask and answer the questions. The necessary information can be found in the Appendix.

5. Study the combining forms:

algo- pain
-algia – pain
-dynia - pain

uni- one
bi- two
tri- three

Analyze the words:

arthralgia _____, gastralgia _____,
cephalalgia_____, cardiodynia_____,
neuralgia _____, hyperalgia _____,
nephralgia _____, neurodynia_____,
odontodynia _____, otalgia _____,
analgesia _____, algogenic _____,
algospasm_____, bilateral _____,
bicapsular_____, bidactyly _____,
bilobular _____, uniocular _____,
uninuclear _____, unilateral _____,
uniseptal _____, trilateral _____.

6. Where does the patient feel this pain?

Abdominal
Cardiac
Epigastric
Generalized
Ocular
Pelvic
Pericardial

Periumbilical
Substernal
Suprapubic

7. When does the patient feel this pain?

Dream
Nocturnal
Postoperative
Postprandial

8. Study the chart describing pain in different diseases.
Describe the pains which patients may have

Words which can go with **pain**

Accentuate, aggravate, experience, feel, have, suffer from, induce, cause, increase, make worsen, reduce, relieve + **pain**
Pain + begin, come, develop, increase, go stronger, stop, disappear, persist, return, come back, subside

Disease	**Character of pain**	**Location**	**Onset**	**Duration**	**Accompanying conditions**	**Relieving factors**	**Aggravating factors**
Peptic ulcer	Gnawing, burning, Hunger	Epigastrium				Food	
Appendicitis		Epigastrtric, Periumbilical	Sudden		Nausea, vomiting, low-grade fever		
Pancreatitis	Severe, steady	Abdominal	Sudden	Hours, days	Nausea, vomiting	Sitting up, leaning forward,	Cough, deep breathing
Angina pectoris	Severe, intense	Substernal, radiates to the shoulder and down the arm		A few minutes	Elevated blood pressure	Rest	Exertion, cold weather
Arthritis	Moderate to severe,	Joint	Sudden		Swelling, warmth, restricted motion		

9. Read the text. Use the proper modals (should, can, may):

An organic cause ___ always be sought because pain is often managed best by removing the cause. The history ___ include ***severity, location, quality, duration, course, and relieving factors***. The ***use, efficacy and adverse effects of drugs*** ___ be determined. ***A personal or family history of***

chronic pain ___ illuminate the problem. ***The patient's level of function*** __ be assessed in detail. The interviewer ___ elicit ***how the patient's pain affects interactions with others***. The ***role of current and premorbid psychopathology,*** and the ***role of family pathology*** ___ be assessed. What pain means to the patient ___ be determined. Pain and suffering ___ be distinguished, especially in cancer patients whose suffering ___ be due to loss of function and fear of death. Physical examination is essential. Appropriate laboratory tests and x-ray examinations ___ be performed.

Socializing: SPEAKING TO A PATIENT

10. Which of the following questions can be asked to obtain the information in italics (Ex. 9)? Match the question with the fragment of the text:

Did the tablets help?
What's the pain like?
Which part of your head is affected?
Have you any trouble with passing water?
Has there been any change in your health since your last visit?
Can you describe the pain?
Is it continuous?
How long does it last?
Is there anything that makes it better / worse?
What seems to bring it on?
How long has it been bothering you?
Have you taken anything for it?
Apart from your headache are there any other problems?
Does anyone else in your family suffer from this problem?
Any problems with your chest?
How long have you had it?
Have you noticed any blood in your stools?
When did it start?
Do bright lights bother you?
Where does it hurt?
Was it something you tried to lift?
Where is it sore?
Have you ever been admitted to hospital?
What kind of pain is it?
Have you ever had headaches before?
Does it affect your work?
Does it come and go?
Does anything make it better / worse?
Does it come on at any particular time?

11. Work as a doctor and a patient. Ask and answer about the character of pain using the table of Ex. 8.

12. Which of the questions should be asked to the patient with migraine?

13. Study the case report. Act as a doctor and a patient:

Surname *James*	**First name** *Elizabeth*

Age *43*	**Sex** *F*	**Marital status** *D*
Occupation *secretary*		
Present complaint *severe throbbing headaches, unilateral, many years, lasting 1-2 days, every month, nausea, sensitivity to smell. Interfering with work.*		
Points of note *aspirin brings relief*		

10. Write a case presentation using the information of Ex. 13.

Basic terminology

Abortive - terminating in the early stages or discontinuing before completion, as arresting the usual course of a disease, stopping growth and development.
Analgesic - relieving pain
Aura *pl.* aurae - a sensation, as of light or warmth, that may precede an attack of migraine or an epileptic seizure.
Depression - a mood disturbance characterized by feelings of sadness, despair, and discouragement resulting from and normally proportionate to some personal loss or tragedy
Insomnia - chronic inability to sleep or to remain asleep throughout the night; wakefulness; sleeplessness
Irritability - a condition of abnormal excitability or sensitivity
Prodrome - . an early sign of a developing condition or disease
Prophylactic - preventing the disease
Trigger - a substance, object, or agent that initiates or stimulates an action

Unit 30

KEY WORDS

Burn (v) - damage by fire
Clench (v) - to hold together tightly
Duration - the length of time that something continues
Exertion - strong physical or mental effect
Fatigue - very great tiredness
Fist - the hand when the fingers are curled in towards the palm
Lean (v) - to move or bend your body in a particular direction
Light-headedness - inability to think clearly or move steady
Press (v) - to hold something close
Remain (v) - to stay in the same place without moving away
Stab (v) - to push a knife into someone or something
Tear (v) - to damage something such as paper or cloth by pulling it too hard
Weakness - lack of power

Language of Medicine: CARDIAC PAIN

1. Which of the following are heart disorders:

Angina, pneumonia, tonsillitis, cardiomyopathy, myocardial infarction, ulcer, cor pulmonale, arrhythmia, insomnia, tachycardia, endocarditis, splenomegaly, otitis.

2. What do the patients complain of in case of a heart attack?

3. Study the chart describing cardiac pain. Do you agree that:

- every type of cardiac pain has its specific character;
- Nitroglycerin is a good remedy for cardiac pain in any case;
- when you feel pain in the heart you should try to change the position;
- cardiac pain always radiates to the shoulder or down the arm;
- cardiac pain is not always accompanied by nausea;
- cardiac pain always begins on exertion;
- cardiac pain is of various duration depending on its origin.

	Myocardial ischemic pain	**Pericardial pain**	**Atypical chest pain**	**Pain from dissection of the aorta**
Character	Pressing, squeezing, weight-like	Stabbing, burning, cutting	Stabbing or burning	Very severe, tearing
Nitroglycerin	Yes	No	No	
The patient feels better		Leaning forward, remaining still		
The pain increases		Coughing, swallowing, deep breathing, lying		

		down		
Location	Central precordium			Center of the chest
Radiation	Neck, lower jaw, or either shoulder or arm (most commonly the left shoulder and left arm)			Back, neck
Accompanying conditions	Nausea or vomiting, sweating			
Onset	On exertion (in arteriosclerosis) sudden (in MI); at rest, nocturnal (in arterial spasms)			
Duration	Minutes	Hours or days	Several seconds or several hours or days	Recurs with the enlargement of the dissection

4. Read the text and fill in the gaps using the information from the chart:

CARDIAC PAIN

Major cardiac diseases have relatively few symptoms, including pain, dyspnea, weakness and fatigue, palpitations, light-headedness, presyncope, and syncope.

Cardiac pain can be categorized as ischemic, pericardial, or atypical.

Myocardial ischemic pain is usually described as _____, _____, or _____. The pain is usually greatest in the _____ , the patient may place a clenched fist over the center of the sternum. The pain may frequently be felt in the _____. Myocardial ischemic pain often induces _____. Myocardial ischemic pain due to coronary arteriosclerosis is usually _____-related. However, the pain of acute myocardial infarction may occur _____ when the patient is at rest. Pain due to arterial spasm tends to occur at rest or at _____. Myocardial ischemic pain usually lasts for _____.

Pericardial pain, which is due to inflammation involving the pericardium, feels like _____, _____, or _____ and is made worse by _____, _____, _____, or _____ . It is less variable in character and position than myocardial ischemic pain. It is diminished by _____ and _____ . Pericardial pain can last for _____. It is _____ by nitroglycerin.

Atypical chest pain tends to be _____ or _____ and is often quite variable in position and intensity from one episode to another. It tends to be unrelated to physical exertion and unresponsive to _____. Its duration may be measured in _____ or it persists over _____ . There is no objective evidence that it indicates serious heart disease, except when due to disease of the great vessels or to pulmonary embolism.

Pain from dissection of the aorta (or rarely the pulmonary artery) is usually _____ and of a _____ character. Pain usually begins with the start of dissection, followed by a quiescent period of hours or days, then recurs with extension of the dissection. It is _____ in the chest, radiates to the _____ or _____, and is unaffected by position.

(From *THE MERCK MANUAL*)

5. Choose the most suitable phrase to continue the statement:

1. **The symptoms of the commonest heart diseases …**
a) Are numerous
b) vary from case to case
c) are not numerous

2. **Myocardial ischemic pain …**
a) occurs on pressing
b) may be of a pressing character
c) is variable in character but not pressing

3. **Myocardial pain …**
a) may cause nausea, vomiting, sweating
b) may cause clenching of fists
c) may be caused by clenching of fists

4. **Pericardial pain …**
a) is caused by burns
b) gets worse on burning
c) resembles pain from burns

5. **The place of atypical chest pain …**
a) changes during the attack
b) is difficult to describe
c) is different with every attack

6. **Atypical chest pain …**
a) changes in intensity on exertion
b) is associated with exercise
c) is not usually associated with exercise

7. **Pain from dissection of the aorta …**
a) may last hours and days
b) begins some hours or days after dissection
c) comes back some hours or days after dissection

8. **Pain from dissection of the aorta …**
a) vary with the position of the patient
b) is not changed by the position of the patient
c) is diminished when the patient is lying on the back

6. Work in pairs. Discuss different types of cardiac pain.
Ask about
- the character of the pain
- the onset of the pain
- the place of pain

- the pain duration
- if nitroglycerin helps
- when the patient feels better
- where the pain radiates
- what conditions accompany the pain

7. Compare the types of cardiac pain. Use ***unlike, in contrast to, both ... and, neither … nor, similar to, different from, the same as.***

8. Match a combining form (A) and its meaning (B).

A) -megaly, brady-, tachy-, -sclerosis,
B) slow, enlargement, rapid, hardening,

Build medical words:

Enlargement of the heart _____, slow heartbeat _____, rapid heartbeat _____, hardening of arteries _____, inflammation of the endocardium _____, high pressure _____, pertaining to the myocardium _____.

9. Write a summary about one type of cardiac pain. Describe its ***character, location, accompanying conditions, onset, relieving and aggravating factors, duration, the effect of Nitroglycerin****.*

Socializing: SPEAKING TO A PATIENT

10. What questions were asked to receive the answer?

1) _____
It's a burning pain.

2) _____
It gets worse when I am coughing.

3) _____
Just in the middle of the chest.

4) _____
I also feel it in the neck and lower jaw.

5) _____
I also feel sick

6) _____
It appeared at night.

7) _____
I was working in the garden when it came.

8) _____
I feel better when I stay still.

9) _____
It lasted only some minutes.

10) _____
No, Nitroglycerin did not help.

11)_____
No, it does not change when I change the position.

12) _____
Since the midnight.

13) _____
No, it has not changed since then.

14)_____
I don't think that I often have chest pain but it is not the first episode.

15) _____
Yes, my father had a heart disease and died of myocardial infarction.

11. Work in pairs. Your patient complains of the pain in the heart, ask him about the pain and make your conclusion about the nature of the pain. (See Appendix).

12. Write a case presentation using the information of Ex. 10

Basic terminology

Dissection - the act of dissecting
Dyspnea - shortness of breath, a subjective difficulty in breathing, usually associated with disease of the heart or lungs
Fatigue - the state, following a period of mental or bodily activity, characterized by a lessened capacity for work usually accompanied by a feeling of weariness, sleepiness, or irritability
Infarction - sudden insufficiency of arterial or venous blood supply due to emboli, thrombi, vascular torsion, or pressure that produces a macroscopic area of necrosis
Ischemia - local anemia due to mechanical obstruction (mainly arterial narrowing) of the blood supply
Ischemic - relating to or affected by ischemia
Palpitation - forcible or irregular pulsation of the heart, perceptible to the patient, usually with an increase in frequency or force, with or without irregularity in rhythm
Syncope - loss of consciousness and postural tone caused by diminished cerebral blood flow

Unit 31

KEY WORDS

Advisable - something that should be done in order to avoid problems or risk
Consequence - something that happened as a result of a particular action
Due to - because of
Effusion – the escape of pus, blood, or other fluid into a body cavity as a result of inflammation
Result from - to happen or exist as a result of something
Result in - to make something happen, cause

Language of medicine: ACUTE PERICARDITIS

Can you supply an example of a disease caused by one agent?
Do you know the diseases caused by several agents?
Can the same disease be caused by different causative agents (e.g. viruses, bacteria, fungi)?

1. Open the brackets:

1) These agents may (cause) _____ pneumonia in adults. 2) Pneumonia (cause) _____commonly by bacteria. 3) Hereditary diseases (cause) _____by errors in the genetic information. 4) An enzyme is a complex protein that (cause) _____changes in the substances without being changed in the process. 5). Nutritional diseases (cause) _____by an insufficient supply of some normal component of food. 6). In certain situations immunologic reactions (cause) _____ tissue injury and may be life-threatening. 7). Some microorganisms (cause) _____ severe problems upon entering the body. 8). Infectious diseases (cause) _____ by infectious agents such as bacteria, fungi, protozoa, viruses. 9). This syndrome (cause) _____ mainly by viruses. 10). Chronic infectious arthritis is persistent infection of the joint (cause) _____pain, swelling, deformity. 11). Stroke is a neurologic disorder (cause) _____ by pathologic changes in the cerebral blood vessels.

*2. Choose either **in** or **from** and put the verb in the correct form:*

1). A disorder of the seventh cranial nerve may (result) in/from _____a paralysis of facial muscles. 2). Down's syndrome (result) in/from _____ an abnormal distribution of the chromosomes. 3). Iatrogenic diseases (result) in/from _____procedures given in health-care facilities. 4). Immunological diseases (result) in/from_____ the improper function of the body's immune system. 5). Cerebral infarction is local necrosis of brain tissue (result) in/from _____ loss of blood supply. 6). Cerebral aneurysm is dilation of an artery of the brain, (result) in/from _____ thinning and weakening of the arterial wall. 7).

Stroke (result) in/from _____ decreased blood flow to a part of the brain. 8). Botulism usually (result) in/from _____ eating contaminated foods from cans.

3. .Study the information. Work in pairs to ask and answer about the causes of the disease. Use: **result in / from, cause / be caused, produce / be produced, be due to, be the cause of, account for, be attributed to**

Disease	**Etiology**
Celiac disease	Sensitivity to gluten, a protein found in wheat and rye.
Portal hypertension	Increased portal flow or increased resistance to flow
Hepatitis	Specific hepatitis viruses, alcohol, and drugs.
Acute infectious arthritis	Bacteria or viruses
Pneumonia in adults	Bacteria
Contact dermatitis	A chemical irritant or an allergen
Angina pectoris	Critical coronary artery obstruction due to atherosclerosis
Lymphadenitis	Bacterial, viral, protozoan, fungal pathogens.
Toxic shock	Unknown
Leprosy	An intracellular parasite
Herpes labialis	Type 1 herpes simplex virus
Syncope	Various cardiovascular and noncardiovascular causes
80% of acute pancreatitis	Alcoholism
Pneumonia	Pneumococci

Describe the disease etiology.

*4. Read the text quickly. Which of the following can cause this disease****: prions, viruses, nervous breakdown, protozoa, cold, bacteria, fungi, burns, physical overstrain, wounds, other diseases, sunlight****?*

ACUTE PERICARDITIS

Pericarditis is inflammation of the pericardium, which may be acute or chronic or may result in pericardial effusion.

Acute pericarditis may result from infection, connective tissue disorders, trauma, MI, or certain drugs, or may be idiopathic.

Infections resulting in acute pericarditis may be caused by bacteria, parasites, viruses, fungi, and protozoa. Bacterial infection is often due to streptococci, staphylococci, gram negative bacilli. *Haemophilus influenzae* is a common cause in children. Viral infection is often due to influenza virus. Patients with AIDS may develop pericarditis because of *Mycobacterium avium*, *M. Tuberculosis*, fungal infection, viral disease, lymphoma. Tuberculous pericarditis is responsible for about 5% of cases of acute and subacute pericarditis in the USA, but causes the majority of cases in some area of India and Africa. Acute or chronic pericarditis may also be caused by connective tissue disorders and by metabolic disorders. It may be due to trauma; penetrating or nonpenetrating chest injuries may cause hemopericardium and resultant pericarditis (sometimes resulting in tamponade).

Acute pericarditis may be an early consequence of acute MI.

Acute pericarditis may present with chest pain, dyspnea, fever, ECG changes, and radiological changes. Dull or sharp precordial pain may radiate to the neck or shoulders. Pain varies from mild to severe and is usually aggravated by thoracic motion, cough, respiration; it may be relieved by sitting up and leaning forward. Tachypnea and nonproductive cough may be present; fever, chills, and weakness are common.

Aspirin 650 mg po, codeine 15 to 60 mg po, meperidine 50 to 100 mg po or IM may be given q 4 h for pain. Anticoagulants are usually contraindicated in acute pericardial disease because they may cause intrapericardial bleeding. Hospitalization to observe for complications is usually advisable.

Pericarditis due to bacterial or mycotic infections is treated with specific antimicrobial drugs. Pericardiocentesis may be required when cardiac tamponade develops rapidly, removal of even a small volume of fluid may be lifesaving. Pericardiocentesis should be performed under the supervision of a cardiologist or thoracic surgeon under echocardiographic guidance. Thoracotomy is usually safer.

(From *THE MERCK MANUAL*)

5. Answer the questions:

1). What kind of disease is pericarditis?

2). What events may precede pericarditis?

3). What microorganisms may cause pericarditis?

4). Is tuberculosis a frequent cause of pericarditis in the USA?

5). Do metabolic disorders play a role in pericarditis development?

6). Is acute pericarditis related somehow to myocardial infarction?

7). What are the symptoms of acute pericarditis?

8). Is it necessarily treated in a hospital?

6. Make sentences using the words:

a) Is by factors acute pericarditis caused various

b) The dyspnea fever of in the are signs acute pericarditis chest pain changes electrocardiogram

c) The the in and be pain may felt shoulders neck

d) Becomes worse deep pain breathing cough the and on

e) The pain sitting makes better up

f) Pectoris patients advised to are with stay angina hospital

7. What do the following abbreviations stand for?

po, q, IM, MI, h, ECG

8. Write the plural of:

Bacterium, virus, fungus, protozoon, streptococcus, staphylococcus, bacillus

9. Build terms with the following meaning:

Inflammation of endocardium _____; puncture of an amnion _____; inflammation of the pancreas _____; surgical cutting of the skull _____; surgical cutting of the stomach _____.

10. Read the case presentation and use the proper form of the verbs in brackets:

A.A., a fifty-year-old male (present) _____ with the cough, chest pain, dyspnea, fever, chills and weakness. The pain (radiate) to the neck and shoulders. The pain (be) _____ mild and (become)_____worse when the patient was coughing. It (diminish) _____when the patient (sit)_____ up. On physical examination precordial friction rub (note) _____. The area of cardiac dullness (increase) _____, chest x-rays (show) _____ some changes in the size and shape of the cardiac silhouette. The lung fields (remain) _____clear. ECG (demonstrate) _____the changes characteristic for acute pericarditis. Pericardial effusion (suspect) _____. Echocardiography (confirm) _____ the presence of fluid. Immediate pericardiocentesis (require) _____. The patient (refer) _____ to surgery department. The procedure (do) _____ under echocardiographic control. The pericardial sac (enter) _____ with a 75-mm needle attached to a 50-mL syringe. Echocardiography (use) _____ to guide the needle. The fluid (withdraw) _____ until intrapericardial pressure (fall)_____ below right atrial pressure. A plastic catheter (pass) _____ through the needle into the sac. This (leave) _____ in place for 2 days.

Socializing: SPEAKING TO A PATIENT

11. Make questions to a patient using the words:

- What / bring along/ today?
- What/ pain /like?
- The pain /severe?
- You/ feel pain/ when/ cough?
- It/ worse/ on coughing and deep breathing in?
- Anything/ make/ the pain better?
- Where/ you/ feel it?
- Where else/ feel the pain?
- Have fever?

12. Have a talk with a patient with suspected acute pericarditis about his complaints.

Basic terminology

Disorder - a disturbance of function, structure, or both, resulting from a genetic or embryologic failure in development or from exogenous factors such as poison, trauma, or disease
Idiopathic - denoting a disease of unknown cause
Pericardiocentesis - needle drainage of the pericardium
Pericarditis - inflammation of the pericardium
Precordial – relating to precordia
Precordia - the epigastrium and anterior surface of the lower part of the thorax

Unit 32

KEY WORDS

Accompany (v) - to happen or exist at the same time as something else
Avoid – to do something to prevent something bad from happening
Beneficial - producing results that bring advantages
Explosive - increasing suddenly or rapidly in size or number
Ingestion - eating
Obvious – easy to notice or understand
Overindulgence – having too much of something
Palliative – a medical treatment that will not cure a problem but will reduce the pain
Preservative – a chemical substance that is used to stop food from decaying
Relieve – to make a pain, problem, unpleasant feeling less severe
Sting – a sharp needle-like part of an animal or insect's body that can be pushed through the skin, often having poison
Subside –to decrease gradually

Language of medicine: SKIN DISEASES

Do you agree that many skin diseases can be diagnosed by thorough physical examination alone?
How do they manifest?
Which of the following can suggest a skin disease: *palpitation, changes in the color, itching, headache, redness, swelling, vomiting, scaling, nausea, hair loss, weight loss, fever, toothache, sore throat*?

The disease you are going to read about (URTICARIA) was named after a widely-spread plant which grows in forests. When you touch this plant, it burns you.

1. Match the words and their definitions:

Ingestion	Eating
Pruritus	which lessens the severity of pain, disease
Overindulgence	allowing too much pleasure of smth.
Palliative	Hives
Urticaria	Itching

2. Read the text. The following phrases were taken from the text. Use them instead of the gaps.

- they should be avoided
- one of the nonsedating antihistamines should be used
- acute urticaria can be due to
- pruritus (generally the first symptom)
- the frequency and severity of episodes
- is usually obvious
- overindulgence
- subsides

URTICARIA

_____drug allergy, insect stings or bites, desensitization injections, or ingestion of certain foods (particularly eggs, shellfish, or nuts). Some reactions occur explosively after ingestion of minute amounts. Others (e.g., reactions to strawberries) may occur only after_____. Urticaria may accompany or even be the first symptom of several viral infections, including hepatitis, infectious mononucleosis, and rubella. Some acute reactions are unexplained, even when recurrent.

Chronic urticaria lasting >6 wk is more difficult to explain, and only in exceptional cases can a specific cause be found. Occasionally, chronic ingestion of an unsuspected drug or chemical is responsible; e.g., from penicillin in milk; from the use of nonprescription drugs; or from preservatives or other food additives.

In urticaria, _____is followed shortly by the appearance of wheals that may remain small (1 to 5 mm) or enlarge. The larger ones tend to be clear in the center and may be noticed first as large rings (> 20 cm across) of erythema and edema. Ordinarily, crops of hives appear and subside; a lesion may remain in one site for several hours, then disappear, only to reappear elsewhere.

The cause of acute urticaria_____. Even when it is not, diagnostic tests are seldom required because of the self-limited, nonrecurrent nature of the reaction. In chronic urticaria, an underlying chronic disease should be ruled out by a detailed history and physical examination and routine screening tests. Since acute urticaria generally _____in 1 to 7 days, treatment is chiefly palliative. If the cause is not obvious, all nonessential drugs should be stopped until the reaction has subsided. Symptoms usually can be relieved with an oral antihistamine. If these cause drowsiness, _____. A glucocorticoid may be needed for more severe reactions, especially when associated with angioedema. In chronic urticaria, spontaneous remissions occur within 2 yr in about 1/2 of cases. Control of stress often helps reduce_____. Certain drugs (e.g., aspirin) as well as alcohol, coffee, and tobacco smoking may aggravate symptoms, if this occurs,_____. When urticaria is brought on by aspirin, sensitivity to NSAIDs and to tartrazine (a food- and drug-coloring additive) should be investigated. Oral antihistamines are usually beneficial.

(From *THE MERCK MANUAL*)

3. Fill in the chart with the information about urticaria:

	Acute	***Chronic***
Duration		
Cause		
Treatment		
Recurrence		
Accompanying diseases		

4. Mark true or false. Make the false statements true:

- Acute urticaria is caused by drugs, foods, injections, insect bites, etc.
- If you eat large amounts of definite foods, you may develop urticaria.
- Urticaria may be a sign of an infectious disease.
- It is easier to establish the cause in chronic urticaria than in acute disease.

- The first sign of urticaria is itching and swelling on the skin.
- Tests are not helpful both in acute and chronic urticaria.
- Acute urticaria lasts for about a week.
- After acute urticaria has disappeared, it is necessary to stop all drugs.
- Some antihistamines can make the patient sleepy.
- In chronic urticaria, the patient may feel better after taking aspirin, drinking alcohol, smoking.
- Oral administration of antihistamines is not advised.
- In 50% of patients chronic urticaria disappears within a period of two years.

Work in pair. Act agreement and disagreement.

5. Act as a professor asking the student about urticaria. The student is at a loss, so ask as many questions as possible to help with the answer. Ask him

- **about causative agents**
- **about the foods which can cause urticaria**
- **if this is an independent condition**
- **about duration of chronic urticaria**
- **if it is possible to find the cause of chronic urticaria**
- **about first sign of urticaria**
- **how the eruption looks like**
- **about diseases which are accompanied by urticaria**
- **about treatment used**
- **about the drugs which relieve symptoms**
- **if remission is possible in chronic urticaria**
- **how often remissions occur**
- **about substances which aggravate the symptoms**
- **if aspirin can be a cause of urticaria**

6. Compare acute and chronic urticaria (causes, symptoms and signs, duration, specific diagnostic tests, course, treatment). Use: ***In contrast to..., Both ... and ..., Neither… nor…***

7. A young colleague asks your advise about the patient presenting with acute urticaria. What can you advise him about the diagnostic tests, underlying diseases treatment, taking unessential drugs, sensitivity to NSAID and additives.

8. Use the information and write a short lecture about Anthrax:

ANTHRAX

Etiology: *Bacillus anthracis*, gram-positive, aerobic. Infection: skin, contaminated meat, respiratory infection (inhaling spores).
Epidemiology: animal disease (goats, cattle, sheep, horses).
Symptoms and signs:
Incubation period: 12 h – 5 days.

Cutaneous form: painless, red-brown papule surrounded by a zone of gelatin-like edema. Peripheral erythema, vesiculation, induration. Local lymphadenopathy, malaise, myalgia, headache, fever, nausea, vomiting.
Pulmonary anthrax: flu-like, fever, severe respiratory distress, cyanosis, shock, coma. Severe hemorrhagic necrotizing lymphadenitis. Pulmonary edema. Pleural infusion. Lung x-ray: diffuse infiltration, widened mediastinum.
GI: hemorrhagic necrosis, septicemia
Diagnosis: Cultures of Gram strains, sputum study. Clinically: GI anthrax nausea, vomiting, anorexia, progressing fever, intestinal necrosis, septicemia, death. Oropharyngeal form: mucocutaneous lesion, sore throat, fever, adenopathy, dysphagia, necrosis, death.
Prevention and treatment: anthrax vaccine. Cutaneous form: procaine penicillin G 600000 U IM bid for 7 days. Tetracycline 2g/day in 4 doses po. Pulmonary: penicillin G 20 million U/day IV, in combination with streptomycin 500 mg/day q 8 h IM. GI: no specific therapy. Avoid contaminated meat. Prophylaxis penicillin G 4 million U q 4 h IV for 10 days.

Socializing: SPEAKING TO THE PATIENT

9. What questions can be asked to the patient to know:

- when the disease began;
- if the disease began suddenly or slowly;
- with what he connects the onset of the disease;
- if he connects the onset of the disease with some foods or drugs;
- what he thinks caused the disease;
- what the first signs of the disease were;
- if the patient still has symptoms;
- if his symptoms disappeared;
- when the symptoms disappeared;
- if this is the first episode;
- what makes the symptoms better.

10. Work in pairs. Speak to your patient and complete the form (See APPENDIX):

Name	
Age	
Address	
Present complaints	
Onset of the disease	
Signs and symptoms	
Duration	

Possible causes	

1. *Write a case presentation about the patient using the information above.*

Basic terminology

Angioedema - recurrent large areas of subcutaneous edema of sudden onset seen frequently as an allergic reaction to foods or drugs
Cause - that by which a morbid change or disease is brought about
Drowsiness - a state of impaired awareness associated with a desire or inclination to sleep
Erythema - redness of the skin due to capillary dilatation
Ingestion - eating
Rubella - an acute exanthematous disease caused by rubella virus
Urticaria - an eruption of itching wheals

Unit 33

KEY WORDS

Benign – a benign tumor is not likely to return after treatment
Cleavage - space
Dissection – cutting up the body
Drape - a sheet of fabric or paper for covering all or a part of a person's body during a physical examination or treatment
Elective – kind of treatment that you choose to have, although you do not have to
Grasp – to take and hold something firmly
Incision – a cut into someone's body during a medical operation
Malignancy – a tumor
Removal – taking something away
Rub – to make something press against something else and move it around
Unsightly – unpleasant to look at

Language of Medicine: WORK OF A SURGEON

How do we call the doctor who treats the patients by means of operations?
How do we call the branch of medicine dealing with operations?

1. Which of the following are surgical instruments?

Knife, spoon, pen, retractor, pencil, scissors, forceps, scalpel, fork, needle, mirror, hemostat, probe, hook, fishing rod, drill, file, hammer.

2. Which of the following can be found in an operating theatre (room)?

Dressing material, chair, vacuum machine, computer, operating table, arm-chair, instrument tray, anesthesia machine, fluoroscope, desk, lamp.

3. Which of the following is done by a surgeon in the operating room?

Removal, palpation, suture, percussion, cutting, reading ECG, feeling the pulse, taking temperature, listening to the heart, writing, opening, resection, incision, excision, dissection, dressing, closing, singing.

4. Read the text. Which of the above was mentioned in the text?

EXCISION OF LIPOMA

Removal of benign subcutaneous fatty tumors (lipomas) is an elective matter unless the mass is growing rapidly or has other characteristics that raise the issue of possible malignancy. Many lipomas are treated expectantly because the patient perceives the discomfort of surgery or the resulting scar to be more of a problem than the mass itself. Others are left alone because the patient has so many of them that it would be impractical to excise them all. Patients are most likely to want them removed if they are rubbing on the waistband or if they are thought to be unsightly. The decision to excise a lipoma should not be made lightly because some of them are bigger and deeper than they appear and the surgery may turn out to be more extensive than expected.

Explanation to the patient, consent, skin preparation, and draping are carried out in the usual way. A local anesthetic agent is injected into both the incision site and the tissues adjacent to the lipoma. It may be necessary to make supplemental injections as the operation proceeds. Make a straight incision over the mass. Continue your dissection down to the tumor, doing as much of it as practical by the blunt method: Insert the end of a hemostatic forceps into the area you want to enter and spread the tips to force the connective tissue apart. Find a "plane of cleavage" along the surface of the lipoma and dissect it away from the surrounding tissue, working first in one direction and then in another. Once a significant part of the lipoma is exposed, put traction on it, either manually or by means of a traction suture, to make the cleavage planes more evident and accessible. At some points blunt dissection will prove unsuccessful; sturdier tissue bands can be cut with knife or scissors, but grasp them with a hemostat first so they can be ligated easily if they prove to contain small blood vessels. Work slowly and cautiously. Dissect close to the surface of the lipoma itself. Identify adjacent nerves, tendons, or blood vessels, and be careful not to disturb them.

Once the lipoma has been dissected free and preserved for your pathologist to examine, decide what must be done to eliminate the resulting "dead space". In some instances this will require only a few buried sutures. Other cases will require both careful suturing and external compression. Close the skin and dress the wound in the usual manner.

(From *PROCEDURES IN AMBULATORY CARE*)

5. Find a more suitable version to complete the statement:

1) Lipoma is /a malignant skin tumor / a benign tumor / accumulation of fat under the skin.

2) Lipoma should be removed / as soon as it is discovered / if it enlarges rapidly / after the patient has taken the decision to have it removed.

3) Some patients dislike the idea of / having a scar / feeling pain / being given anesthesia.

4) The patients agree to have lipoma removed more eagerly if / the patients have many of them / they are told that the discomfort of surgery is minimal / the lipoma looks ugly.

5) Taking the decision to operate the doctor should remember that / the operation is expensive / the outlook of the tumor is deceiving / the patient may loose a lot of blood.

6) The operation is performed under / local anesthesia / general anesthesia / endotracheal anesthesia.

7) The anesthetic is injected / before the operation / before and during the operation / before and possibly during the operation.

8) Blunt method consists in / exposing the operation site using forceps / using a blunt scalpel / working with scissors.

9) Before cutting the tissue with a scalpel it is necessary / to take measures to prevent hemorrhage / to choose the right instrument / to look for small blood vessels.

10) It is necessary to be careful because / the vital structures, which are close to the tumor, can be injured / the tumor contains nerves, blood vessels, tendons / the tumor may spread to some vital structures: nerves, blood vessels, tendons.

11) After the removal it is necessary / to fill the space left / to take measures to get rid of the space left / to make some space.

6. Find synonyms for:

removal, cutting, agreement, neighboring, additional, ligate, outer

7. What questions can be asked to restore the missing information:

1). A lipoma is a benign tumor composed of a ___ tissue.

2). Lipomas grow very ___.

3). Many lipomas are small but can enlarge to sizes ___.

4). The most common kind of lipoma is located in ___.

5). The types of lipoma include ___.

6). Treatment of lipoma is ___ necessary.

7). Many people have them removed for ___ reasons.

8). ___ is a new method of treatment which does not leave a scar.

9). Lipomas occur more often in ___.

10). Lipomas appear most commonly on ___.

11). Lipomas may cause ___.

12). Bothersome lesions may be treated by ___.

13). Usually the women aged ___ are affected.

14). About ___ suffer from it.

Work in pairs. Ask and answer the questions (Use the information in the Appendix)

8. Study the combining forms:

–ectomy – surgical removal
-rrhaphy – suture
-stomy – making a new opening
-tomy – surgical cutting
-tome - instrument for cutting
-plasty – surgical repair
-pexy - fixation

Build medical words:

Instrument to cut bones _____, removal of the stomach _____, incision of the stomach _____, incision into the chest _____, surgical repair of the nerves _____, making a new opening of the kidney _____, fixation of the internal organs

_____, removal of tonsils _____, making a new opening in the trachea _____, suturing of hernia _____, surgical repair of the lips _____, removal of the pancreas _____, incision of the urinary bladder _____, fixation of the kidney _____, fixation of an ovary _____, suturing of the nerves _____, suture of a vein _____, surgical repair of the windpipe _____, surgical repair of the skin _____.

9. Yesterday you observed a colleague removing lipoma. Describe what he did.

Socializing: SPEAKING TO A PATIENT

10. Your patient complains of a skin tumor. What questions can be asked to him to know:

- when the tumor appeared,
- if he can connect its appearance with something,
- if the tumor is painful,
- if the tumor produces any discomfort,
- if it grows quickly or slowly,
- if it has changed its shape, color recently,
- if he feels itching in the region of the tumor,

11. Your patient has a lipoma which is not painful, not growing rapidly, not visible, does not make any discomfort. Explain the patient that surgery is not necessary at the moment.

12. You patient has lipoma which grows rapidly and may disturb some vital organs. Explain the patient that the operation is necessary. Briefly, describe the nature of the tumor, possible problems, method of anesthesia and the character of operation to make him less nervous.

Basic terminology

Benign – noncancerous
Cicatrix (*pl.* **cicatrices) -** scar tissue that is avascular, pale, contracted, and firm after the earlier phase of skin healing characterized by redness and softness
Dissect - to cut apart tissues for visual or microscopic study using a scalpel, a probe, or scissors.
Excision - the process of excising or amputating
Forceps (pl. **forceps)** a pair of any of a large variety and number of surgical instruments, all of which have two handles or sides, each attached to a blade. Forceps are used to grasp, handle, compress, pull, or join tissue, equipment, or supplies
Malignant - (describing a cancer) anaplastic, invasive, and metastatic
Scalpel - a small, pointed knife with a convex edge used for surgical procedures
Surgery - ,the branch of medicine concerned with diseases and trauma requiring operative procedures
Suture - to stitch together cut or torn edges of tissue with suture material; a surgical stitch taken to repair an incision, tear, or wound; material used for surgical stitches
Tumor - new growth of tissue characterized by progressive, uncontrolled proliferation of cells

Unit 34

Key words

Adjacent – next to
Confine – to keep someone or something within the limits
Cure – to make someone who is ill well again
Escape – to get away from a dangerous situation
Involve – to include or affect someone or something
Site – a place where something important happens
Solid – firm, hard
Surveillance – carefully watching a person or place
Team – a group of people who have chosen to work together for a particular job

Name five most prevalent diseases.
What system are they associated with?
What kind of disease are they (inflammation, infection, injury, etc.)?

1. Read the following terms from the text. Judging by these terms, what is the text about? (Write the title of the text).

Carcinogen
Combination chemotherapy
Initial
Malignancy
Malignant
Metastasize
Multimodality therapy
Osteoma
Palliative therapy

2. What do these terms mean? Read the text and check your answers:

A cancer is a group of cells that has lost its normal control mechanisms and thus has unregulated growth. Cancerous (malignant) cells can develop from any tissue at any age. A mass of cancerous tissue—called a tumor—invades and destroys normal adjacent tissues. Cancerous cells from the primary (initial) site can spread (metastasize) throughout the body.

Cancer is more likely to progress in people whose immune system is impaired, as in people with AIDS, those with certain autoimmune diseases, and older people, in whom the immune system works less well than in younger people. However, even when a person's immune system is functioning normally, cancer can escape the immune system's protective surveillance.

Cancerous cells develop from healthy cells. The change may occur spontaneously or be brought on by an agent that causes cancer (a carcinogen).

Cancerous tissues (malignancies) can be divided into those of the blood and blood-forming tissues (leukemias and lymphomas) and "solid" tumors, often termed cancer. Cancers can be carcinomas or sarcomas.

Leukemias and lymphomas crowd out normal blood cells in the bone marrow and bloodstream, so that normal cells are gradually replaced by cancerous blood cells.

Carcinomas are cancers of epithelial cells. Examples of carcinomas are cancer of the skin, lung, colon, stomach, breast, prostate, and thyroid gland. Typically, carcinomas occur more often in older than in younger people.

Sarcomas are cancers of the cells that form muscles and connective tissue. Examples of sarcomas are leiomyosarcoma (is found in the wall of digestive organs) and osteosarcoma (bone cancer). Typically, sarcomas occur more often in younger than in older people.

Treating cancer is one of the most complex aspects of medical care. It involves a team of doctors working together (for example, primary care doctors, medical oncologists, surgeons, radiotherapists, and pathologists) and many other types of health care practitioners (nurses, physiotherapists, social workers, and pharmacists).

When the diagnosis of cancer is first made, the main goals of treatment are to remove the cancer. Even when a cure is impossible, symptoms resulting from the cancer can often be relieved with treatment that improves the quality of life (palliative therapy).

Surgery is a traditional form of cancer treatment. It is the most effective in eliminating most types of cancer before it has spread to lymph nodes or distant sites (metastasized). For some cancers, the best approach is a combination of surgery, radiation therapy, and chemotherapy (multimodality therapy). Surgery or radiation therapy treats cancer that is confined locally, while chemotherapy also kills the cancer cells that have spread to distant sites.

Chemotherapy involves the use of drugs to destroy cancer cells. The type of cancer determines which drugs are used, in what combination, and at what dose. Chemotherapy drugs are most effective when given in combination (combination chemotherapy).

Radiation is a form of energy generated by a radioactive substance, or by specialized equipment, such as an atomic particle (linear) accelerator. A radioactive substance may be injected into a vein to travel to the cancer (for example, radioactive iodine, which is used in treatment of thyroid cancer). Another technique uses small "seeds" of radioactive material placed directly into the cancer (for example, radioactive palladium used for prostate cancer).

(From *THE MERCK MANUAL, HOME EDITION FOR PATIENTS AND CAREGIVERS*)

3. Read the text once again. Is it true that:

- Malignant tumors can develop in any organ.

- All people are at risk of developing cancer.

- Metastasis is a primary tumor.

- Cancer is more frequent in healthy people.

- Cancer never begins without external stimulation.

- Carcinomas are more common in younger than in older patients.

- Sarcoma is a blood malignancy.

- A cancer patient is treated by several specialists.

- A combination of surgery, radiation therapy, and chemotherapy is called combination chemotherapy.

- The dose of chemotherapy drugs depends on the type of cancer.

- Radiation therapy uses a special form of energy.

Make the false statements true.

4. Use the words and phrases from the text to fill in the gaps:

a) Cancer is a proliferation of cells in which loss of normal controls results in _____ _____.

b) _____ develop when tumor cells penetrate into surrounding tissues.

c) Patients with the _____ _____ disorders are predisposed to cancer development.

d) The major modalities of cancer therapy are _____, _____, _____.

e) _____ _____ combines the assets of all methods of cancer treatment.

f) _____ is the best form of effective cancer therapy.

g) The most common method of _____ _____ is external beam with a liner accelerator.

h) Combination of several _____ _____ can provide significant cure rates.

5. Study the table and describe the causes of different types of cancer

Carcinogen	**Type of Cancer**
Arsenic	Lung
Asbestos	Lung, pleura
Aromatic amines	Bladder
Benzene	Leukemia
Chromates	Lung
Nickel	Lung, nasal sinuses
Vinyl chloride	Liver
Soot and mineral oil	Skin
Alcohol	Esophagus, mouth, throat
Tobacco	Mouth, throat, lung, esophagus, bladder, kidney

(From *THE MERCK MANUAL, HOME EDITION FOR PATIENTS AND CAREGIVERS*)

6. Study some drugs used for chemotherapy. Work in two groups Ask and answer questions to fill in the gaps in the chart (see Appendix for group 2):

GROUPS OF DRUGS	EXAMPLES OF CANCER	HOW THE DRUG WORKS	SIDE EFFECTS
Alkylating agents	?	Cause errors in replication of DNA	Suppress bone marrow Injure lining of stomach Cause hair loss May decrease fertility Suppress the immune system May cause leukemia
Antimetabolites	Head and neck cancer, breast cancer, acute leukemia	Block synthesis of DNA	?
Antibiotics	Leukemia, sarcomas, solid tumors	?	Same as for alkylating agents Can cause nerve damage
?	Lung cancer, gastric cancer	Form bonds with DNA causing breaks	Same as for alkylating agents Also can cause nerve and kidney damage, hearing loss
Hormones	?	Block the tumor growth	Can cause endometrial cancer, blood clots, hot flashes, nausea, vomiting
Biologic response modifiers	Leukemia, renal cell cancer, melanoma	Unknown	?
Antiangiogenic agents		?	Can cause high blood pressure, protein loss in urine, bleeding, clotting, intestinal perforation

(From *THE MERCK MANUAL, HOME EDITION FOR PATIENTS AND CAREGIVERS*)

7. Describe the action and side effects of anticancer drugs using the information of Ex.6.

8. Study the combining forms:

Adeno - gland
Carcino – cancer
Chemo – drug
Cryo - cold
Cysto - cyst
Leiomyo – smooth muscle
Lipo – fat
Muta – change
Onco – tumor
Pleo – more
Rhabdomyo – striated muscle
Sarco – connective tissue
Terato – monster
-plasia – formation
- plasm – growth
-oma - tumor

Analyze the terms

adenocarcinoma

adenoma
carcinogen
carcinoma
chemotherapy
cryotherapy
cystic
hyperplasia
leiomyosarcoma
liposarcoma
mutagen
neoplasm
oncogenesis
pleomorphic
radiotherapy
rhabdomyosarcoma
teratoma

Socializing: SPEAKING TO A PATIENT

9. A friend of yours must be operated on. What questions will you ask the doctor about the operation.

These are some questions a patient may want to ask the doctor before treatment begins:

What is my diagnosis?
What is the stage of the disease?
What are the treatment choices? Which do you recommend? Why?
What are the chances that the treatment will be successful?
How will we know if the treatment is working?
How long will the treatment last?
What can I do to take care of myself during treatment?
What are the risks and possible side effects of each treatment?
How will I feel after the operation?
If I have pain, how can it be controlled?
Will I need more treatment after surgery?
Will I need a skin graft or plastic surgery? Will there be a scar?
Will treatment affect my normal activities? If so, for how long?
How often will I need checkups?
What is the treatment likely to cost?

Work in pairs. Act as a doctor and a patient's friend.

Basic terminology

Benign - noncancerous.
Carcinogen - an agent that causes cancer.
Cure - complete elimination of the cancer with the result that the specific cancer will not grow back.
Invasion - the capacity of a cancer to infiltrate and destroy surrounding tissue.
Malignant - cancerous.
Metastasis - cancerous cells that have spread to a completely new location.
Tumor - abnormal growth or mass.

Functions

Result and reason	*He has an allergy,* ***because*** *he has eaten some strawberries.* ***As/since*** *he has eaten some strawberries, he has an allergy.* *He has eaten some strawberries,* ***as a result*** *he has an allergy.* *His allergy* ***was caused*** *by strawberries.* *Strawberries* ***may cause*** *allergy.* *Eating strawberries may* ***result*** *in allergy.* *Allergy may* ***result from*** *eating strawberries.* *His allergy* ***was due to*** *eating strawberries.*
Contrast	***Although*** *she was ill, she went to school.* ***Despite*** *her illness, she went to school.* ***In spite of*** *her illness, she went to school* *While/Whereas* *She was ill.* ***However****, she went to school.* *She was ill,* ***but*** *she went to school.* *She was ill,* ***yet*** *she went to school.* ***On the other hand*** ***In contrast to*** ***As opposed to*** ***Unlike***
Purpose	*I went to the shops* ***for some bread.*** *They went to Holland* ***to see the tulips.*** *They make the vaccination* ***in order to*** *avoid the infection.*
Advice	***I think you should*** *stay at home.* *If I were you, I'd stay at home.* *Why don't you stay at home?*
Asking	***Can you*** *wait here?* ***Will you*** *wait here****, please****?* ***Would you*** *wait here,* ***please****?*
Refusing	***Sorry, I can't.***
Accepting	***Of course, I can.***
Asking for information	***Can you*** *tell me* ***Could you*** *tell me* ***Would you mind*** *telling me*
Asking for permission	*Is it all right if I leave early, please?* *Can I leave early, please?* *Could I leave early, please?* *Yes, of course.* *Sorry, but you can't.* *May I leave early, please?* *Yes, you may.* *Sure.* *Of course*

	Sure, no problem.
Asking for advice	*What would you do?* *What do you think I should do?*
Agreement	*I agree.* *That's right.*
Disagreement	*I don't agree.* *I don't think so.*

Appendix

Unit 19. Ex. 2.
Answers for student B.:
1. It's immunization.
2. Active and passive are the two main types of immunization.
3. Killed or weakened microorganisms are introduced.
4. Antibodies neutralize or destroy toxins and disease carrying organisms.
5. This protection is usually short-term.
6. It's smallpox.
7. Polio and measles.
8. It makes it harder for the disease to find an unprotected person to infect, and to spread widely enough to cause an epidemic.
9. Usually during childhood.

Answers for student A.:
10. This is called a booster.
11. Diphtheria, tetanus, pertussis (whooping cough), polio, meningitis C, measles, mumps, rubella.
12. They are healthcare workers.
13. Flu and/or pneumococcal vaccine.
14. The examples are malaria, typhoid or yellow fever.
15. It lasts from a few months to lifelong immunity.
16. They are usually mild and short-lived.
17. Redness or swelling at the injection site, fever, and minor features of the disease being vaccinated against
18. It's called anaphylactic shock.

Unit 20. Ex. 7.

1 – perspiration, 2 – spasm, 3 – helminth, 4 – fever, 5 – dizziness, 6 – poison, 7 – itching, 8 – hypertension, 9 – pain, 10 – infection, 11 – vomiting, 12 – microorganism, 13 - convulsion

Unit 21, Ex. 10
Indications: serious gram-negative bacillary infection; (together with penicillin) streptococcal, enterococcal endocarditis.
Adverse reactions: neuromuscular blockade, paresthesias, peripheral neuropathy, hypersensitivity reactions, vestibular damage.
Dosage and administration: IM or IV, 1-1.7 mg/kg every 8 hours (adults); 1-1.25 mg/kg every 8 hours (children).

Unit 24
Jane Simpson; 35; secretary; Merton Str., 6, Oxford, smoker, 10-15 cigarettes a day, cough, fever, 2 days ago after a cold, pain in the chest worse after coughing

Unit 26, Ex. 11
Complaints: pain on the right of the belly which radiates to the shoulder blade and comes with intervals, sickness, nausea, vomiting.

Unit 28, Ex. 10

Information for the patient:
Name: N.N.
Age: 48
Sex: M
Complaints: pressing pain in the chest, also in the neck and lower jaw, began at night, accompanied by nausea, sweating. Duration: about 10 minutes.

Unit 29, Ex. 4
a) 4 to 72 hours; b) throbbing, is moderate to severe in intensity, is unilateral; c) nausea, vomiting, or sensitivity to light, sound or smell; d) 10 and 40; e) insomnia, barometric pressure change, and hunger; f) a short prodromal period of depression, irritability, restlessness; g) an aura; h) frequency of attacks; i) prophylactic, abortive, or analgesic; j) a person has more than one migraine a week.

Unit 30, Ex. 8
Information for the patient:
Ann Smith, 22, 5 Oxford Road, began suddenly with itching, wheals, possibly after taking aspirin, disappeared within an hour or two

Unit 31, Ex. 7
Information for student B.
1) fatty; 2) slowly; 3) >6 cm; 4) subcutaneous tissue of the head, neck, shoulders; 5) superficial, subcutaneous, intramuscular, spindle cell, lipoma of tendon sheath, nerves, synovial membranes; 6) not often; 7) cosmetic; 8) protein injection; 9). In women than in men; 10). The trunk, nape, forearms; 11). Pain; 12). Surgical excision or liposuction; 13). 30-50; 13); 14). 1 to 1000 of population.

Unit 34, Ex. 6

GROUPS OF DRUGS	EXAMPLES OF CANCER	HOW THE DRUG WORKS	SIDE EFFECTS
Alkylating agents	Malignant lymphoma, breast cancer	?	Suppress bone marrow Injure lining of stomach Cause hair loss May decrease fertility Suppress the immune system May cause leukemia
Antimetabolites	?	Block synthesis of DNA	Same as for alkylating agents
?	Leukemia, sarcomas, solid tumors	Block division of cancer cells	Same as for alkylating agents Can cause nerve damage
Platinum derivatives	?	Form bonds with DNA causing breaks	Same as for alkylating agents Also can cause nerve and kidney damage, hearing loss
?	Breast cancer, prostate cancer	Blocks the tumor growth	Can cause endometrial cancer, blood clots, hot flashes, nausea, vomiting
Biologic response	Leukemia, renal cell cancer, melanoma	?	Can cause fever, chills, bone marrow suppression, thyroid

modifiers			deficiency, hepatitis
Antiangiogenic agents		Blocks vascular endothelial growth factor (VEGF)	?

IMPORTANT COLLOCATIONS

COUGH (n)
Little, violent, bad, dry, persistent, productive + **cough**
Have, suffer from, catch, develop, get **+ cough**
COUGH (v) cough up

DIAGNOSIS
Accurate, correct, right, incorrect, wrong, early, initial, final + **diagnosis**
Confirm, establish, make + **diagnosis**
Method of **diagnosis**

DIARRHEA
Severe, mild, acute, chronic, intermittent, persistent + **diarrhea**
Have, suffer from, develop + **diarrhea**

DIET
A balanced, good, healthy, bad, poor, adequate + **diet**
Eat, have + **diet**
Diet + consist of smth
In a/the **diet**

DISEASE
A common, rare, dangerous, serious, mild, chronic, acute, fatal, incurable, curable, communicable, contagious, infectious, congenital, childhood, tropical, water-borne, occupational, heart, mental, sexually transmitted + **disease**
Have, suffer from, catch, get, contact, cause, diagnose, treat, fight, control, manage, cure, prevent, eradicate + **disease**
Disease + spread
With a **disease**
Resistance to **disease**
Suffer from a **disease**
The treatment of / for a **disease**

DRUG
Powerful, strong, modern, new, sedative, anti-cancer, anti-inflammatory,, prescription + **drug**
Take, prescribe (sb), give (sb) treat sb with, administer + **drug**
Be resistant to, not respond to + **drug**
Drug + against, for

FEVER
A high, + **fever**
Have, run, suffer from, develop, reduce, be accompanied by + **fever**

HEALTH
Excellent, full, good, perfect, bad, ill, poor, general, mental, physical, sexual, occupational, public + **health**
Enjoy, have, look after, maintain, improve, promote, harm, ruin, worsen + **health**
bad/good for your **health**, in good/poor **health**, state of **health**

MEDICINE (science)
Modern, traditional, folk, alternative, preventive, clinical, forensic, private + **medicine**

Train in medicine, qualify in medicine practice + **medicine**
A branch of medicine

MEDICINE (drug)
Powerful, strong, cough, herbal, prescription + **medicine**
Dose of **medicine**
Take, swallow, prescribe (sb) administer, give (sb) treat sb with + **medicine**
Medicine for

NAUSEA
Intense, sudden, severe + **nausea**
Experience, feel, complain of , bring on, cause, relieve + **nausea**

OPERATION
Major, minor, small, life-saving, vital, emergency, routine, delicate, surgical, heart + **operation**
Have, undergo, come through, survive, carry out, perform + **operation**
Operation for

PAIN
A/an acute, awful, excruciating, extreme, colicky, laminating, generalized, localized, great, intense, severe, sharp, terrible, unbearable, burning, shooting, stabbing, throbbing, dull, little, slight, chronic, constant, sudden, intermittent, recurrent, abdominal, chest + **pain**
Accentuate, aggravate, experience, feel, have, suffer from, induce, cause, increase, make worsen, reduce, relieve + **pain**
Pain + begin, come, develop, increase, go stronger, stop, disappear, persist, return, come back, subside

PATIENT
A cancer, diabetic, heart, mental, psychiatric, seriously ill, terminally ill, hospital, long-stay, private, elderly, adult, child + **patient**
Examine, see, treat, admit, discharge, transfer + **patient**
Patient + develop smth, have smth, suffer from smth, respond to smth,
Patient + with (disease)

PHYSICIAN
Experienced, qualified, practicing, consultant, hospital, family + **physician**

SURGERY (treatment)
Major, minor, extensive, successful, unsuccessful, keyhole, laser, invasive, elective, emergency, plastic, general, abdominal, brain, cardiac, gastric, heart, open-heart, pediatric + surgery
Have, undergo, perform, need, require + **surgery**
Surgery for

SURGERY (place/time)
Open , afternoon, dental, doctor's, GP's + **surgery**
Do, have, hold, attend, go to + **surgery**
In a/the **surgery**

SYMPTOM
Characteristic, common, typical, minor, secondary, serious, severe, mild, behavioral, mental, neurotic, abdominal, respiratory, allergic + **symptom**
Display, exhibit, experience, have, present with, report, show + **symptom**

Develop, get, cause, produce, aggravate, exacerbate, recognize, interpret + **symptom**
Symptom + persist, appear, arise, develop, occur, recur

THERAPY
Occupational, behavioral, family, group, radiation + **therapy**
Need, require, be given, have, receive + **therapy**

TREAT
Treat + easily, successfully, surgically
treat for with

TREATMENT
Emergency, urgent, effective, alternative, hospital, hormone, drug, outpatient, inpatient + **treatment**
get, have, receive, undergo, administer, need, require, seek, recommend + **treatment**
treatment for

COMBINING FORMS, PREFIXES, SUFFIXES

a - without
ab - away from
abdomino - abdomen
acouo - hearing
acro - extremities
ad - forward
adeno - gland
adenoido - adenoids
adipo - fat
adrenalo - adrenal glands
adreno - adrenal glands
aero - air
algesio - excessive sensitivity to pain
-algia - pain
alveolo - air sac
an - no
ana - up
andro - male
angio - vessel
ano - anus
ante - before
antero - front
anthraco - coal dust
anti - against
aorto - aorta
arterio - artery
arthro - joint
articulo - joint
-ase - enzyme
atrio - atrium
audio - hearing
auri - ear
auro
auto - self
bacterio – bacteria
bi - two
bili - bile
bilirubino - bilirubin
bio - life
-blast - immature cell
blepharo - eyelid
bolo - to throw
brachio - arm
brady - slow
bronchio - bronchial tube
broncho
bucco - cheek
burso - bursa
carcino - cancer
cardio - heart
cata - down
ceco - cecum
-cele- hernia
celio - abdomen
-centesis - surgical puncture
cephalo - head
cerebro - brain
cervico - neck
cheilo - lip
chemo - drug
chole - bile
cholecysto - gallbladder
chondro - cartilage
-cidal - killing
ciso - to cut
claviculo - clavicle
-clysis - washing
-coccus - berry-shaped
coccygo - coccyx
colo - colon
con - with
conio - dust
contra - against
corneo - cornea
corono - heart
cortico - cortex
costo - rib
cranio - skull
-crine - secrete
crino - to secrete
cryo - cold
cutaneo - skin
cyano - blue
-cyesis - pregnancy
cysto - urinary bladder
-cyte - cell
cyto - cell
cytosis - condition of cell
dacryo - tear
dactylo - finger (toe)
de - lack of
denti - tooth
dermato - skin
dermo - skin
dia - complete
disto - far
dorso - back
-drome - to run
ducto - to lead
duodeno - duodenum

duro - dura mater
dys - bad
echo - sound
ectasia - straching
-ectasis- straching
ecto - outside
-ectomy - surgical removal
electro - electricity
-emesis - vomitig
-emia - blood condition
encephalo - brain
endo - within
entero - intestines
eosino - pink
epi - above
epididymo - epididymus
erythro - red
esophago - esophagus
esthesio - feeling
eu - good
ex - out
exo - outside
femoro - femur
fibulo - fibula
folliculo - small sac
furco - branching
gastro - stomach
-genesis - condition of
geno - producing
gingivo - gum
-globin - protein
-globulin - protein
glomerulo - glomerulus
glosso - tongue
gluco - sugar
glyco - sugar
gnoso - knowledge
gonado - sex glands
gono - seed
-gram - record
granulo - granules
-graph - instrument for recording
-graphy - process of recording
gyneco - woman
hemato - blood
hemi - half
hemo - lood
hepato - liver
hidro - sweat
histo - tissue
hydro - water
hyper - above
hypno - sleep
hypo - under
hystero - uterus
-ia - condition
-iasis - condition
iatro - physician
ileo - ileum
ilio - ilius
immuno - safe
in - in
infra - below
inter - between
intra - within
irido - iris
ischio - ischium
ischo - to hold back
iso - equal
-ist - specialist
-itis - inflammation
jejuno - jejunum
kali - potassium
karyo - nucleus
kerato - cornea
kinesio - movement
labio - lip
lacrimo - tear
lacto - milk
laparo - abdomen
laryngo - larynx
latero - side
leiomyo - smooth muscle
leuko - white
ligamento - ligament
linguo - tongue
lipo - fat
litho - stone
lobo - lobe
-logy - science
lumbo - lower back
lympho - lymph
-lysis - destruction
macro - large
mal - bad
-malacia - softening
mammo - breast
mandibulo - lower jaw
masto - breast
maxillo - upper jaw
medio- middle
medullo - medullary
-megaly - enlargement
melano - black

meningio - meninges
meningo
meso - middle
meta - between
-meter - to mesure
metrio - uterus
micro - small
mono - one
morpho - shape
morto - death
muco - mucus
muta - change
myco - fungus
myelo - bone marrow
myelo - spinal cord
myo - muscle
myoso - muscle
narco - numbness
naso - nose
nati - birth
necro - death
necto – to connect
nephro - kidney
neuro - nerve
neutro - neutral
normo - normal
nucleo - nucleus
oculo - eye
odonto - tooth
-odynia - pain
-oid - resembling
oligo - scanty
-oma - tumor
onco - tumor
onycho - nail
oophoro - ovary
-opaque - dark
ophthalmo - eye
-opia - vision
-opsy - to view
orchido
orchio
orcho - testis
oro – mouth
-orrhagia - bursting forth of blood
ortho - straight
-osis - condition
-osmia - smell
osteo - bone
oto - ear
ovario - ovary
ovo - egg
oxo - oxygen
pan - all
pancreato - pancreas
papillo - nipple-like
para - near
-paresis - slight paralysis
patho - disease
-pathy - disease
pectoro - chest
pelvi - pelvis
-penia - deficiency
-pepsia - digestion
per - through
peri - surrounding
peritoneo - peritoneum
-pexy - fixation
-phagia - eating
phago - to eat
phalango - phalanges
pharmaco - drug
pharyngo - pharynx
phaso - speech
-pheresis - removal
-philia - attraction for
philo – to like
phlebo - vein
-phobia - fear
phobo - fear
phonia - sound
-phonia - voice
-phoresis - transmission
photo - light
phreno - diaphragm
-phylaxis - protection
-plasia - development
-plasty - surgical repaire
-plegia - paralysis
pleuro - pleura
-pnea - breathing
pneo - breathing
pneumo - lung
pneumono
-poiesis - formation
poly - many
post - after
postero - back
-prandial – meal
pre - before
pro - before
procto - anus
prostato - prostatic gland
proximo - near

pseudo - false
psycho - mind
-ptosis - drooping
-ptysis - spitting
pulmono - lung
pupillo - pupil
pyelo - renal pelvis
pyo - pus
pyro - fever
radio - rays
recto - rectum
reno - kidney
retino - retina
retro - back
rhino - nose
-rrhaphy - suture
-rrhea - flow
-rrhexis - rupture
sacro - sacrum
scapulo - shoulder blade
sclero - sclera
-sclerosis - hardening
scope - instrument for visual examination
scopo - visual examination
sectio - to cut
semi - half
sepso - infection
sialo - saliva
sigmoido - sigmoid colon
sinuso - sinus
spermato - spermatozoa
spermo
spino - spine
spiro - to breathe
spleno - spleen
spondylo - vertebra
-stalsis - contraction
-stasis - stop
-stenosis - tightening
sterno - sternum
stetho - chest
-sthenia - strength
stomato - mouth
-stomy - to make a new opening
submaxillo - lower jaw
supra - above
syn - together
tele - distant
testo - testes
thalamo - thalamus
-therapy - treatment
thermo - heat
thoraco - chest
-thorax - chest
thrombo - clot
thymo - thymus gland
thyro - thyroid gland
-tome - instrument for cutting
tomo - to cut
-tomy - cutting
tonsillo - tonsil
toxico - poison
toxo - poison
tracheo - trachea
trans - across
tricho - hair
-trophy - development
tympano - eardrum
ultra - beyond
uretero - ureter
urethro - urethra
-uria - urination
urine
uro - urine
utero - uterus
valvo - valve
vaso - vessel
veno - vein
ventriculo – ventricle
ventro - belly
vertebro - vertebra
vesico - urinary bladder
viro - virus
viscero - internal organs
vulvo - vulva
xero - dry
zoo - animal life

ESSENTIAL GRAMMAR

VERB
PRESENT SIMPLE OF BE

Statements	Negatives	Questions
I am	I am not	Am I?
You are	You are not	Are you?
He is	He is not	Is he?
We are	We are not	Are we?
They are	They are not	Are they?

PRESENT SIMPLE

Statements	Negatives	Questions
I work	I do not work	Do I work?
You work	You do not work	Do you work?
He works	He does not work	Does he work?
We work	We do not work	Do we work?
They work	They do not work	Do they work?

We use Present Simple to describe
- general facts
- repeated actions (always, usually, often, sometimes, never)
- things that are always true

PRESENT SIMPLE PASSIVE

Statements	Negatives	Questions
I am taught	I am not taught	Am I taught?
You are taught	You are not taught	Are you taught?
He is taught	He is not taught	Is he taught?
We are taught	We are not taught	Are we taught?
They are taught	They are not taught	Are they taught?

We use passive
- when the doer of the action is not important (The house was build in 1999).
- when the doer of the action is not known (The window was broken last night).
- we put information at the beginning because it is important (The museum is visited by hundreds of people. The door was opened with a special key.)

PRESENT PERFECT

Statements	Negatives	Questions
I have worked	I have not worked	Have I worked?
You have worked	You have not worked	Have you worked?
He has worked	He has not worked	Has he worked?
We have worked	We have not worked	Have we worked?
They have worked	They have not worked	Have they worked?

PRESENT PERFECT PASSIVE

Statements	**Negatives**	**Questions**
I have been taught	I have not been taught	Have I been taught?
You have been taught	You have not been taught	Have you been taught?
He has been taught	He has not been taught	Has he been taught?
We have been taught	We have not been taught	Have we been taught?
They have been taught	They have not been taught	Have they been taught?

We use Present Perfect to describe

- present situation by saying what has happened without mentioning the exact time (Why are you at home? -I've broken my leg)
- our experience in future without mentioning the exact time (I've been to London)
- We use Present Perfect with ever, never, just, yet, already, since

PAST SIMPLE OF BE

Statements	**Negatives**	**Questions**
I was	I was not	Was I?
You were	You were not	Were you?
He was	He was not	Was he?
We were	We were not	Were we?
They were	They were not	Were they?

PAST SIMPLE

Statements	**Negatives**	**Questions**
I worked	I did not work	Did I work?
You worked	You did not work	Did you work?
He worked	He did not work	Did he work?
We worked	We did not work	Did we work?
They worked	They did not work	Did they work?

Past Simple is used to describe

- finished events in the past (yesterday, a week ago, last Monday, last year, in 2002)

PAST SIMPLE PASSIVE

Statements	**Negatives**	**Questions**
I was taught	I was not taught	Was I taught?
You were taught	You were not taught	Were you taught?
He was taught	He was not taught	Was he taught?
We were taught	We were not taught	Were we taught?
They were taught	They were not taught	Were they taught?

MODALS

CAN

Statements	**Negatives**	**Questions**
I can swim	I cannot swim	Can I swim?
You can swim	You cannot swim	Can you swim?
He can swim	He cannot swim	Can he swim?

We can swim They can swim	We cannot swim They cannot swim k	Can we swim? Can they swim?

We use can to describe
- ability (I can swim)
- possibility (Can you come to me tomorrow?)

MUST

Statements	**Negatives**	**Questions**
I must leave	I mustn't leave	
You must leave	You mustn't leave	
He must leave	He mustn't leave	
We must leave	We mustn't leave	
They must leave	They mustn't leave	

We use Must to describe
- necessary or important actions (I must work, I don't want to fail the exam)
- certainty (He must be in the garden)

HAVE TO

Statements	**Negatives**	**Questions**
I have to leave	I don't have to leave	Do I have to leave?
You have to leave	You don't have to leave	Do you have to leave?
He has to leave	He doesn't have to leave	Does he have to leave?
We have to leave	We don't have to leave	Do we have to leave?
They have to leave	They don't have to leave	Do they have to leave?

We use have to describe a rule made for us by somebody (We have to wear a uniform.)
We can use have to when we talk about necessity (I have to work, I don't want to fail the exam.)

SHOULD

Statements	**Negatives**	**Questions**
I should leave	I should not leave	Should I leave?
You should leave	You should not leave	Should you leave?
He should leave	He should not leave	Should he leave?
We should leave	We should not leave	Should we leave?
They should leave	They should not leave	Should they leave?

Should is used for advice (I think you should read more.)

MAY

We use may for possibility or uncertainty

MODALS - PAST

COULD

Statements	Negatives	Questions
I could leave	I could not leave	Could I leave?
You could leave	You could not leave	Could you leave?
He could leave	He could not leave	Could he leave?
We could leave	We could not leave	Could we leave?
They could leave	They could not leave	Could they leave?

We use could to describe
- past abilities (She could read when she was six.)
- present time possibility (He could be in the garden)

HAD TO

Statements	Negatives	Questions
I had to leave	I didn't have to leave	Did I have to leave?
You had to leave	You didn't have to leave	Did you have to leave?
He had to leave	He didn't have to leave	Did he have to leave?
We had to leave	We didn't have to leave	Did we have to leave?
They had to leave	They didn't have to leave	Did they have to leave?

We use had to describe past obligation (I had to do a lot of work yesterday.)

PLURAL NOUNS

Cat – cats, box – boxes, potato – potatoes, family – families, play – plays,

IRREGULAR PLURALS

Knife – knives
Man-men
Woman – women
Child – children
Tooth – teeth
Foot – feet
Mouse – mice
Sheep – sheep

LATIN AND GREEK PLURALS (MEDICAL WORDS)

Vertebra – vertebrae
Bacterium – bacteria
Coccus – cocci
Phenomenon – phenomena
Apex - apices
Diagnosis - diagnoses
Carcinoma – carcinomata

NUMERALS

CARDINAL

One	Eleven	Twenty-one
Two	Twelve	Twenty-two
Three	Thirteen	thirty
Four	Fourteen	forty
Five	Fifteen	fifty
Six	Sixteen	sixty
Seven	Seventeen	seventy
Eight	Eighteen	eighty
Nine	Nineteen	ninety
Ten	Twenty	One (a) hundred

101 – a hundred and one
200 – two hundred
999 – nine hundred and ninety nine
1,000 – a (one) thousand
1,001 – a thousand and one
999,999 - nine hundred and ninety nine thousand nine hundred and ninety nine
1,000,000 – a (one) million
2,000,000 – two million

ORDINAL

First	Eleventh	Twenty-first
second	Twelfth	Twenty-second
Third	Thirteenth	Thirtieth
Fourth	Fourteenth	Fortieth
Fifth	Fifteenth	Fiftieth
Sixth	Sixteenth	Sixtieth
Seventh	Seventeenth	Seventieth
Eighth	Eighteenth	Eightieth
Ninth	Nineteenth	Ninetieth
Tenth	Twentieth	One (a) hundredth

FRACTIONS
½ - a half
¼ - a quarter
¾ - three quarters
½ - one and a half
1.5– one point five
2.25 – two point two five

PHONE NUMBERS
35 00 7 89 – three five double o seven eight nine

DATES
2/11/99 – the second of November (November the second) nineteen ninety-nine

YEARS
1999- nineteen ninety-nine

2001 two thousand and one

ADJECTIVES

Positive	**Comparative**	**Superlative**
One syllable words		
long	Longer	The longest
big	Bigger	The biggest
dry	Drier	The direst
Two and more syllable words		
modern	More modern	Most modern
interesting	More interesting	Most interesting
exceptions		
Ending in –y		
happy	Happier	The happiest
Irregular		
good	Better	The best
bad	worse	The worst
little	less	The least

Comparatives compare two things ***(Lisa is older than Clara***)
Superlatives compare one thing in a group with all the other things

IRREGULAR VERBS

Infinitive	**Past simple**	**Past participle**
arise	arose	arisen
awake	awoke	awaked
be	was	been
bear	bore	born
beat	beat	beaten
become	became	become
begin	began	begun
bend	bent	bent
bind	bound	bound
bite	bit	bit(ten)
bleed	bled	bled
blow	blew	blown
break	broke	broken
bring	brought	brought
build	built	built
burn	burnt	burnt
catch	caught	caught
choose	chose	chosen
come	came	come
cost	cost	cost
cut	cut	cut
do	did	done
draw	drew	drawn
drink	drank	drunk
drive	drove	driven
eat	ate	Eaten
fall	fell	fallen
feed	fed	fed
feel	felt	felt
fight	fought	fought
find	found	found
fly	flew	flown
forbid	forbade	forbidden
forget	forgot	forgotten
forgive	forgave	forgiven
freeze	froze	frozen
got	got	got
give	gave	given
go	went	gone
grow	grew	grown
have	had	had
hear	heard	heard
hide	hid	hidden
hold	held	held
hurt	hurt	hurt
keep	kept	kept
know	knew	known

lay	laid	laid
lead	led	led
leave	left	left
lie	lay	lain
lose	lost	lost
make	made	made
meet	met	met
pay	paid	paid
put	put	put
read	read	read
ride	rode	ridden
ring	rang	rung
rise	rose	risen
run	ran	run
say	said	said
see	saw	seen
seek	sought	sought
send	sent	sent
set	set	set
shake	shook	shaken
shoot	shot	shot
show	showed	shown
shrink	shrank	shrunk
sing	sang	sung
sit	sat	sat
sleep	slept	slept
smell	smelt	smelt
speak	spoke	spoken
spend	spent	spent
spread	spread	spread
stand	stood	stood
sting	stung	stung
strike	struck	struck
swim	swam	swum
take	took	taken
tear	tore	torn
tell	told	told
think	thought	thought
throw	threw	thrown
wear	wore	worn
write	wrote	written

Навчальне видання

ПРАКТИКУМ З АНГЛІЙСЬКОЇ МОВИ ДЛЯ СТУДЕНТІВ-МЕДИКІВ
(частина 2)

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