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Language Training Department**

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**MEDICAL ENGLISH TERMINOLOGY FOR STUDENTS,
POSTGRADUATES AND TEACHERS OF MEDICINE**

Dnipro
2021

Затверджено на засіданні предметно-методичної комісії з гуманітарних і загальноосвітніх дисциплін. Протокол № 4 від 22.02.2021 р.

Затверджено до друку на засіданні Вченої ради ДДМУ. Протокол № 8 від 24.06.2021 р.

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Клименко І.М. Тоқун І.І. *Medical English terminology for students, postgraduates and teachers of Medicine*

Навчальний посібник для самостійної роботи викладачів, аспірантів та студентів (медичні спеціальності) / за ред. Т.В. Філат – Дніпро, 2021 – 146 с.

Medical English terminology for students, postgraduates and teachers of Medicine is a collection of supplementary learning materials for the teachers, postgraduates, students who specialize in general medicine. It is designed both for work in a classroom setting and the self-study learning.

The goal of this collection is to develop and improve English language reading, writing, speaking skills of teachers, postgraduates who are involved in teaching medicine to foreign students.

The collection contains useful terminology and phrases, phrasal verbs being connected with different issues of medicine, useful theoretical material and texts for the summary writing from a number of authentic sources including textbooks, reference works and common medical forms.

Pre-text and post-text tasks are intended for work in pairs to help teachers, post-graduates, students develop interpersonal skills they will need in their work and facilitate the learning process.

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Section I. Texts for the classroom reading

Unit 1

WHO

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

member-state – країна-учасник

to sign – підписувати

to eradicate – викоринювати

water supply – водопостачання

epidemic warning(s) – попередження епідемії

health authorities – керівники медичних установ

outbreak – спалах

to carry out – виконувати

to station – розмістити

headquarters – головне управління, центральний орган

2. Утворити іменники від дієслів за допомогою суфікса -er/-or

to conduct, to research, to investigate, to do, to perform, to dream, to produce

3. Перекласти українською мовою словосполучення

epidemic diseases, international standardization, health protection, outbreak of the disease, infectious diseases, to raise health levels, to broadcast information.

4. Прочитати текст та перекласти українською мовою, користуючись словником

WHO

Many people do not know what these three letters mean. They even do not read WHO correctly. They read [hu:] but it is I'dAbIju: 'eitj 'ou] and it means World Health Organization. WHO was founded in 1948.

In 1946 The United Nations held an International Health Conference in New York. There the Constitution of WHO was signed by 61 countries. Now there are more than 125 member states. Membership is open to all countries.

WHO activities take many forms:

strengthening national health services,

preparing more and better health workers,

controlling or eradicating epidemic diseases,

protecting mother and child health,

improving sanitation and water supply,

and making all other efforts to raise health levels.

One of the main services carried out by WHO is the service of epidemic warnings. The five main world epidemics of history – plague, cholera, smallpox, typhus and yellow fever – are still a great danger in our time of fast sea and air travel.

WHO gathers information and broadcasts it daily by radio to health authorities, ports, airports and ships at sea. WHO also informs national health services about outbreaks of viral diseases such as influenza and poliomyelitis.

Besides an epidemic information WHO also provides services which are needed by all the countries, such as international quarantine measures, world health statistics, international standardization of medicines and vaccines, development of medical research and technical publication programs.

The daily work of the World Health Organization is carried out by a medical and administrative staff of a great number of international officers from different countries. These officers are stationed at headquarters (H. Q. S) in Geneva, in regional Offices, or with Special Centres working in every continent.

Post-Text Exercises

1. Працюючи в парах, дати відповіді на запитання
 1. What is WHO?
 2. What are activities of WHO?
 3. What is one of the main services carried out by WHO?
 4. Where is the daily work of WHO carried out?
2. Підібрати заголовки абзацам тексту власноруч
3. Знайти англійські відповідники українським реченням в тексті та записати у зошит.
 1. Конституція ВООЗ була підписана 61 країною.
 2. Членство в ВООЗ доступно всім країнам.
 3. ВООЗ інформує національні служби охорони здоров'я про спалахи вірусних інфекцій.
 4. Щоденна робота ВООЗ виконується медичним та адміністративним апаратом службовців із різних країн.
4. Скласти діалоги на наступні теми
 1. The main tasks of WHO.
 2. Service of epidemic warnings.
 3. Administrative staff of WHO.

Unit 2

Organization of the Medical Academy

Pre-Text exercises

1. Прочитати і запам'ятати слова та вирази

to carry the title – носити титул

to be responsible for – бути відповідальним за щось

to share – ділитися

major – головний

to head – очолювати

dean – декан

affair – справа, заняття

several – декілька

chairman – завідуючий, голова

to pursue – займатися, виконувати, продовжувати

opportunity – сприятлива можливість

to become acquainted with – познайомитись з

extra-curricular – позааудиторний, суспільний

to participate in – брати участь в

required – обов'язковий

to cause – змушувати

to postpone – відкладати

outstanding – видатний

well-equipped – добре обладнаний

2. Замінити слова та словосполучення їх синонімами з тексту та записати у зошит

to divide, job, main, department, business, to lead, to make up, a few, to form, to take part, time-table, to raise, obligatory, chance, establishment.

3. Утворити дієслова від іменників та прикметників, записати у зошит

responsible, administration, supervision, training, increasing, participation.

4. Прочитати та перекласти текст, користуючись словником. Визначити головну ідею тексту

ORGANIZATION OF THE MEDICAL ACADEMY

The head of the medical academy carries the title of rector. He is responsible for the administration and supervision of the academy. His responsibilities are shared with assistants who carry the titles of pro-rectors. In many cases they are responsible for specific activities within the academy; e. g., pro-rector for research, protector for academic work, or pro-rector for administration.

The major teaching and administrative unit of medical academies is the faculty. A medical academy may have one or more faculties. Each faculty is headed by a dean. The dean is responsible for the administrative affairs of the faculty.

Several individual disciplines each organized as a department or chair, constitute a faculty. Each chair has a head, usually a professor who serves as the chairman.

Every medical academy may have from one to five faculties: therapy, pediatric, sanitation-hygiene, stomatology, pharmacy. In medical academies with faculties of therapy, pediatrics, and sanitation-hygiene all students have their preclinical subjects together and then pursue specialized clinical training in one of the three faculties. About 70 per cent of medical students study in faculties of therapy.

Medical students have an opportunity to become acquainted with research in medical sciences through scientific circles. Most chairs in a medical academy have a scientific circle for students interested in a specific discipline. These circles represent an active and energetic program of organized extra-curricular activity directed towards increasing the students' interest in research.

Although students may participate in these circles beginning in the first year, the heavy schedule of required courses causes most students to postpone participation until their third year. Between 20 and 25 per cent of medical students participate in the scientific circles. Between 1 and 2 per cent of the students in the scientific circles develop into serious research workers. Some of the students who do outstanding research are given the opportunity to go directly into post-graduate courses in medical academies or research institutes following graduation. Students have well-equipped rooms for studying general and specialized medical subjects. Well-trained staff members teach students to be good specialists.

Post-Text Exercises

1. Працюючи в парах, дати відповіді на питання

1. Who carries responsibilities for administration and supervision of the Academy?
2. What is the organization of the Academy?
3. What is possibility to become acquainted with research in the Academy?
4. What are the rector, pro-rectors and deans responsible for?

2. Розділити текст на смислові частини, дати заголовок кожній частині

3. Знайти англійські відповідники українським реченням та записати у зошит

1. Кожний факультет очолюється деканом
2. Кожна медична академія має від одного до п'яти факультетів.
3. Близько 70% студентів навчаються на лікувальних факультетах.
4. Більшість кафедр у медичній академії мають науковий гурток для студентів, які цікавляться спеціальними дисциплінами.
5. 1-2% студентів, що займаються у наукових гуртках, стають серйозними науковими робітниками.

Unit 3

Cells

Pre-Text Exercises

1. Вивчити напам'ять наступні слова та словосполучення

to make up – зіставляти, утворювати

life span – тривалість життя

inclusion – включення

aside from – за виключенням

tiny – крихітний, найдрібніший

leakage – протікання, просочування

to combat – боротись проти

staining characteristics – здібність фарбувати

nucleus – ядро

nuclei – ядра

defence – захист

2. Прочитати текст та перекласти українською мовою, користуючись словником

CELLS

A large number of cells make up our body. They range from small cells, some of which have a short life span, to others which are extremely large and which may survive in our body as long as we remain alive.

Structurally, each of the cells is divided into two main parts, the nucleus and the cytoplasm.

The nucleus is a large, spherical structure: it is surrounded by cytoplasm. It is a most important structure for several reasons. It is important because it is present in all mammalian cells except red blood cells and keratinized cells. Very frequently nuclei serve as the basis for diagnosing a pathologic process. Aside from their staining characteristics, which make them useful to histologists, nuclei are important biologically.

A double membrane, the nuclear membrane, separates the nucleus from the cytoplasm. The cytoplasm has been shown through electron microscopy to contain many well-organized structures, called organelles and inclusions. The inclusions contain food and secretory and pigment granules.

The cell membrane is the thin membrane which surrounds the cytoplasm. The cellular membrane contains lipid and protein molecules. The membrane also contains tiny holes, called pores. The cellular membrane prevents leakage of the inner cellular structures into the surrounding environment. Serving as a highly selective barrier, the membrane keeps certain unwanted substances from entering the cell but admits other substances that are necessary for maintaining cellular life.

Pinocytosis is the process of absorption of liquids through a cellular membrane. Phagocytosis refers to the process of ingestion or moving of solids through the cell membrane. Phagocytosis is a mechanism of defense against bacteria, or other harmful substances, since these substances are ingested by the cells that combat inflammation.

Post-Text Exercises

1. Скласти план, використовуючи речення з тексту

2. Розставити речення та записати у зошит в порядку, відповідному до тексту

1. The inclusions contain food and secretory and pigment granules.
2. Structurally each of the cells is divided into two main parts...
3. Very frequently nuclei serve as the basis for diagnosing a pathologic process.
4. Phagocytosis is a mechanism of defense against bacteria...
5. A double membrane... separates the nucleus from the cytoplasm.
6. The cellular membrane contains lipid and protein molecules.

3. Працюючи в парах, дати відповідь на питання

1. What is the role of the nucleus?
2. What is the function of the cellular membrane?
3. What is a mechanism of defense against bacteria?

4. Працюючи в парах, описати будову клітини

Unit 4

Systems of the Body

Pre-Text Exercises

1. Вивчити напам'ять наступні слова та словосполучення

- skeletal – скелетний
- muscular – м'язовий
- nervous – нервовий
- circulatory – кровоносний
- digestive – травний
- respiratory – дихальний
- urinary – сечовий
- reproductive – репродуктивний
- ligament – зв'язка
- spinal cord – спинний мозок
- to pump through – прокачувати
- blood stream – кров'яний потік, струмінь
- to carry away – видаляти, виводити
- to convey – передавать
- regulatory substance – регулююча речовина

2. Прочитати текст та перекласти українською мовою, користуючись словником

SYSTEMS OF THE BODY

There are nine main systems of the body: the skeletal, the muscular, the nervous, the circulatory, the digestive, the respiratory, the urinary, the endocrine and the reproductive systems.

The skeletal system consists of the bones of the body and ligaments and cartilages, which joint them. The chief function of the skeletal system is structural.

The muscular system consists of the skeletal muscles and their associated structures. The main function of this system is to move us about.

The nervous system consists of the brain and spinal cord, nervous, ganglia and receptors. It is a complex information system with all the necessary means for receiving, processing, and communicating information.

The circulatory system consists of the heart and blood vessels and the blood, which is pumped through the blood vessels by the heart. Its function is chiefly that of transportation system: the nutrients, oxygen, and special substances which are required by cells are carried by the blood stream; and the cellular wastes and sometimes other materials produced by the cells are carried away by the blood stream.

The digestive system consists of the alimentary canal and a number of associated glands.

The respiratory system consists of the lungs, the air passages leading to them, and associated structures. Its main function is to convey oxygen to the lungs, where it can enter the blood stream, and to remove carbon dioxide, which escapes from the blood into the lung spaces.

The urinary system consists of two kidneys, which produce urine by removing nitrogenous and other wastes from the blood: "the two ureters, which convey the urine away from the kidneys; the urinary bladder, where the urine is stored until it is discharged; and the urethra through which the urine is discharged.

The endocrine system consists of a number of glands throughout the body which produce regulatory substances called hormones. The endocrine system serves to regulate a large number of activities.

Post-Text Exercises

1. Скласти план тексту та записати у зошит
2. Знайти в тексті англійські речення відповідні наступним та записати у зошит
 - Її (скелетної системи) основна функція - опорна.
 - Система травлення складається з травного каналу і декількох залоз.
 - Її (дихальної системи) основна функція - переносити кисень до легень і видаляти CO_2 .
 - Ендокринна система служить для регулювання різноманітних видів діяльності.
3. Працюючи в парах, дати відповіді на питання
 1. What are the functions of the skeletal and the muscular systems?
 2. What is carried by the blood-stream?
 3. What is the function of the respiratory system?
 4. What does the endocrine system serve for?
 5. Where are the hormones produced?
4. Працюючи в парах, описати систему кровообігу

Unit 5

Bones

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

responsive – реагуючий

space – простір, місце

bone marrow – кістковий мозок

appearance – вигляд

fatty tissue – жирова тканина

framework – каркас

lever – важіль

storage depot – сховище

flat bone – плоский

joint – суглоб

junction – з'єднання

solidly fused together – міцно з'єднані разом

cartilage – хрящ

sheet of cartilage – шар

hinge – блок, петля

pivot joint – суглоб, що дозволяє тільки обертальні рухи

2. Прочитати текст та перекласти українською мовою, користуючись словником

BONES

Bone is a dynamic tissue, very responsive to local and systemic needs of the body. It undergoes changes in shape to make way for growing organs.

The bones that make up the skeletal system may be considered as organs, since they contain a number of tissues working together in cooperative manner. Aside from the bone tissue which is mineralized, bones contain blood vessels, nerves, a membranous cover called periosteum, and cartilage. In addition, bones contain spaces of variable size in which bone marrow is found. In young individuals red blood cells and certain white blood cells, called granulocytes, are formed in the bone marrow, and this gives the marrow a red appearance. Because of this it is called red bone marrow. In adults, the rate of blood-cell formation decreases and the red bone marrow is replaced by fatty tissue. It is then called yellow marrow.

The functions of bones include the following: 1) bones serve as a structural framework of the body; 2) bones offer protection for various organs; 3) bones act as levers which are moved by muscles and thereby permit locomotion; 4) bones serve as storage depots for calcium and other bone minerals; 5) red bone marrow is the site wherein red blood cells and granulocytes are formed.

Bones are classified according to their shape as long bones, short bones, flat bones, and irregular bones.

JOINTS

A joint is a junction between two bones which are not solidly fused together. Some joints are fixed, others permit a little movement, and in others the two members can move freely on each other.

Different joints are described as fibrous, cartilage and synovial joints.

Fibrous joints are those in which the two bones are connected together by a fibrous-tissue band. Sutures of the skull which connect the flat bones together are of this type. These joints permit no movement.

Cartilage joints are those in which a sheet of cartilage is between the bones. Sometimes more complex fibrocartilaginous structures are present; for example, articular discs between the vertebrae bodies are of this type. They allow some movement between the bones.

Synovial joints are characterized by the presence of a synovial cavity between the ends of the bones.

Joints are sometimes divided into types such as ball and socket joints, hinge joints, and pivot joints.

Depending on the shape of a joint, various movements are possible. If the joint works like a hinge, the movements are those of flexion and extension. Other joints may have a wider range.

Post-Text Exercises

1. Розділити текст на змістовні частини, дати їм заголовки реченнями з тексту та записати у зошит
2. Працюючи в парах, знайти в тексті речення про будову кісток
3. Працюючи в парах, знайти в тексті речення про кістковий мозок
4. Знайти англійські відповідники українським реченням в тексті та записати у зошит

Синовіальні суглоби характеризуються наявністю синовіальної порожнини між кінцями кісток.

Червоний кістковий мозок - місце, де утворюються червоні кров'яні тільця і гранулоцити.

Крім кісткової тканини, яка мінералізована, кістки містять кровоносні судини, нерви і хрящі.

5. Працюючи в парах, дати відповідь на питання

1. What are the functions of bones?
2. How are the joints classified?
3. What gives the marrow a red appearance?

Unit 6

Muscular System

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- contraction – скорочення
- movement – рух
- voluntary – мимовільний
- involuntary – довільний
- striated muscle – поперечно-посмугований м'яз
- by the will of man – за волею людини
- trunk – тулуб
- extremity – кінцівка
- smooth – гладенький, рівний
- total body weight – загальна вага тіла
- bundle – пучок, зв'язка
- tendon – сухожилля
- by means of – за допомогою
- to attach to – прикріпляти(ся) до
- contractile – скоротливий
- size – розмір
- shape – форма
- to be found – знаходиться

2. Прочитати текст та перекласти українською мовою, користуючись словником

MUSCULAR SYSTEM

Muscles are the active part of the motor apparatus their contractions produce various movements. Functionally all muscles are divided into two groups: voluntary and involuntary muscles.

Voluntary muscles consist of striated muscle tissue and contract by the will of man. This group includes all the muscles of the head, trunk and extremities, i. e. the skeletal muscles, as well as those of some internal organs (tongue, larynx, etc).

Involuntary muscles consist of smooth muscle tissue and are found in the walls of internal organs, blood vessels and in the skin. The contractions of these muscles are not controlled by man.

It should be remembered that the heart muscle, although its contractions are not controlled by the will, consists of striated muscle tissue with a special structure.

There are more than 400 skeletal muscles in the human organism; in adults they make up about two-fifth of the total body weight.

Skeletal muscles are complex in structure. They consist of muscle fibres of different length (up to 12 cm); the fibres are usually parallel to each other and are united in bundles. Each muscle is composed of many such bundles. There are tendons at the ends of muscles by means of which they are attached to bones.

Tendons consist of dense fibrous connective tissue and are not contractile.

In addition to muscle fibres and connective tissue each skeletal muscle has blood vessels and nerves. Blood passes along blood vessels, delivers nutrients to the muscles and carries away their waste products. The nerves link the muscles and the central nervous system. Muscles have both motor and sensory nerve fibres.

Muscles are called long, short and broad according to their size and shape. Long muscles are found mainly in the extremities and vary in structure. Broad muscles are found in the trunk, and short muscles are found between the ribs and the vertebrae.

Post-Text Exercises

1. Працюючи в парах, скласти план тексту та записати у зошит
2. Знайти в тексті англійські відповідники українським реченням та записати у зошит
 1. Функціонально всі м'язи діляться на 2 групи: довільні і мимовільні.
 2. Мимовільні м'язи складаються з гладкої м'язової тканини.
 3. У людському організмі більше 400 скелетних м'язів.
 4. На кінцях м'язів знаходяться сухожилля, за допомогою яких м'язи прикріплюються до кісток.
 5. Нерви з'єднують між собою м'язи і центральну нервову систему.
3. Працюючи в парах, дати відповіді на питання
 1. What can you say about voluntary muscles?
 2. What can you say about tendons?
 3. What is the structure of skeletal muscles?
 4. Where are the long, broad and short muscles found?
4. Записати у зошит опис скелетних м'язів: 1) форма; 2) будова; 3) кровопостачання

Unit 7

The Skin

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- skin – шкіра
- layer – шар
- subcutaneous – підшкірний
- termed – названий
- to vary – відрізняється
- downward – вниз
- many-sided – багатосторонній
- column-shaped – циліндроподібний
- to possess – володіти
- vitality – життєздатність
- loosely connected – вільно-з'єднаний
- papilla(ae) – горбик(ки), сосочок(ки)
- rudiment – рудимент
- band – зв'язка, пучок
- to interlace – переплітатись
- to permeate – проходити крізь
- sweat – піт
- sebaceous – жировий
- to enclose – зачиняти

2. Прочитати текст та перекласти українською мовою, користуючись словником

THE SKIN

The skeleton is covered by the skin, by the layer of subcutaneous tissue and fat, and by the muscles.

The skin consists of two layers: an outer layer termed the epidermis, and an inner layer termed the dermis.

The epidermis is composed of a number of layers of cells which vary in shape from above downward. The cells in the surface layers are flat. Those in the layers lower down are round or many-sided; the cells in the deeper layers are column-shaped, and possess great vitality and power of reproduction.

The dermis is composed of a mass of loosely connected fibres which can be divided into two layers: 1) An outer layer which is raised into a great number of conical or finger-like projections termed papillae. Each papilla contains blood vessels and nerve endings and also the rudiment of a hair. 2) An inner layer consisting of bands of connective tissue interlacing with each other and permeated by blood vessels, glands and fat.

The skin contains two sets of glands: the sweat glands and the sebaceous glands. The nails and hair are special structures developed from the epidermis.

The functions of the skin are of great importance and are as follows: to enclose contained parts, to act as a protective covering, to contain special nerve endings, which receive and convey the stimuli producing the sense of touch, to excrete certain waste products in the form of perspiration which consists of water with a proportion of mineral matter dissolved in it and a small quantity of carbonic acid.

Post-Text Exercises

1. Працюючи в парах, знайти речення до пунктів

1. Будова шкіри

2. Залози шкіри

3. Функції шкіри

2. Прочитати абзац, що починається словами «*The dermis...*» та викласти письмово його зміст одним реченням.

3. Працюючи в парах, дати відповіді на питання

What are the layers of the skin?

2. What is the difference in the cells of the surface layer and the deeper layer?

3. What does each papilla contain?

4. What does perspiration consist of?

4. Зрівняти будову епідермісу та дерми, записати у зошит

Unit 8

Endocrine Glands

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- excretory duct – вивідна протока
- to affect – діяти, впливати
- disturbance – порушення
- to accompany – супроводжувати
- hypophysis – гіпофіз, мозковий придаток
- epiphysis – шишкоподібна залоза
- thyroid – щитоподібна залоза
- thymus – тимус, вилочкова залоза
- islet – острівець
- pancreas – підшлункова залоза
- adrenal – надниркова залоза
- incretory – внутрішньосекреторний
- gland – залоза
- network – сітка
- chief – головний
- neurohumoral – нейрогуморальний

2. Прочитати текст та перекласти українською мовою, користуючись словником

ENDOCRINE GLANDS

Endocrine glands, or glands of internal secretion, are glands without excretory ducts. They produce special substances called hormones, which are secreted directly into the blood. The hormones are carried throughout the organism with the blood and are delivered to various organs whose activity they either stimulate or depress.

Hormones play a very important part in the organism. Many of them affect metabolism and the functioning of the cardiovascular, reproductive, and other systems. A disturbance in the activity of the endocrine glands is accompanied by changes throughout the organism. These changes may be due to an increase in the function of a gland (hyperfunction) or a decrease (hypofunction).

The chemical composition of some hormones is well-known. Various hormonal preparations are made synthetically or from the corresponding glands of animals (endocrine preparations) and are widely used in medicine. It should be noted that hormones are substances with very high biological activity.

The endocrine glands include the hypophysis (or pituitary), the epiphysis cerebri (or pineal), the thyroid, the parathyroids, the thymus, the islet part of the pancreas, the adrenals and the incretory part of the sex glands. Each gland consists of glandular epithelial tissue and has an extensive network of blood vessels and a large number of nerve fibres (from the vegetative nervous system)

The functions of all endocrine glands are interconnected, and the glands make up a single system. The hypophysis is the chief gland of this system: it produces special substances which stimulate the activities of the other endocrine glands.

The influence of various substances (mainly hormone) acting on the organism through the blood is called humoral regulation.

The activities of endocrine glands are regulated by the nervous system. The nervous system exercises direct control over the endocrine glands through the nervous and neurohumoral control, particularly through the hypophysis. The hormones in their turn affect the functions of the different parts of the nervous system.

Post-Text Exercises

1. Розділити текст на змістовні частини, дати їм заголовок
2. Знайти в тексті англійські відповідники українським реченням та записати у зошит
 1. Гормони переносяться по організму за допомогою крові.
 2. Порушення в роботі залоз внутрішньої секреції супроводжуються змінами у всьому організмі.
 3. Різні гормональні препарати виготовляються синтетично.
 4. Функції всіх ендокринних залоз взаємопов'язані.
 5. Робота всіх ендокринних залоз регулюються нервовою системою.
3. Працюючи в парах, дати відповідь на питання
 1. Where are the hormones secreted?
 2. What is the role of hormones?
 3. How are the hormones made?
 4. What are the parts of the endocrine system?
 5. What is humoral regulation?
4. Записати у зошит опис ендокринних залоз
5. Працюючи в парах, розповісти про гормони

Unit 9

Secretion

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

to bring about – здійснювати, викликати

to look upon as – розглядати

gland – залоза

lumen – протока, просвіт

surface – поверхність, простір

to pour onto – розливати(ся)

to surround – оточувати

dense – щільний, густий

distinct – певний, явний

merely as – тільки як

stream – потік, струмінь

transfer agency – фактор передачі

dilation – розширення

appreciable – відчутний, довготривалий

cause – причина

to be regarded as – вважатись

2. Прочитати текст та перекласти українською мовою, користуючись словником

SECRETION

Secretion is a process generally brought about by an organ called a gland. A gland whether simple or highly complex in structure, may be looked upon as a tube, whose walls are composed of highly specialized epithelial cells, gland cells. The tube is closed at one end. In many glands the other end of the lumen opens up, either directly or by means of a special duct, onto a free surface, such as the skin, the interior of the mouth, the lumen of the intestine, etc. The materials produced by the gland are poured onto this free surface, for which reason the secretion of this type of gland is spoken as an external secretion. The gland is surrounded by a dense network of capillaries.

The distinct process may take place in a gland: the gland cell serves merely as a transfer agency, or it acts as a manufacturing plant or both. In the first instance, certain materials, water and NaCl are taken out of the blood stream by the gland cell, transferred through the cell, passed into the duct or lumen, and secreted on a free surface. All types of glands transfer water in this manner. Some glands, e. g. the sweat glands, practically limit their activity to this.

Other glands take certain materials out of the blood stream and chemically transform them into new compounds which together with water and salts are then poured into the duct.

The activity of the gland is normally accompanied by a great dilation of its blood vessels, without this increased flow of blood a gland cannot function for any appreciable length of time. Nevertheless in many instances its blood flow in itself is not the direct cause of secretion, for by administering certain drugs (e. g. atropine) it is possible to stop

the secretion completely although the flow of blood continues. Secretion by the digestive glands is to be regarded as an active phenomenon, and not merely a passive filtration.

Post-Text Exercises

1. Скласти план тексту та записати у зошит

2. Працюючи в парах, розташувати речення відповідно до їх порядку в тексті

1. Some glands practically limit their activity to this.
2. The activity of the gland is normally accompanied by a great dilation of its blood vessels.
3. A gland... may be looked upon as a tube.
4. Secretion by the digestive glands is to be regarded as an active phenomenon.
5. The gland cell serves merely as a transfer agency.

3. Дати відповіді на питання та записати їх у зошит

1. What is a gland?
2. How do glands transfer water?
3. What is the activity of the gland accompanied by?
4. What types of secretion do you know?

4. Працюючи в парах, описати будову залози

Unit 10

Respiratory Organs

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

respiratory – дихальний
larynx – гортань
trachea – трахея
bronchi – бронхи
lung – легеня
pleura – плевра
cricoid cartilage – перснеподібний хрящ
cartilagineous – хрящовий
membraneous – перетинчастий
incomplete – незавершений, неповний
to bifurcate – роздво'єння
to resemble – бути схожим
naked – голий, оголений
lobe – частка
lobule – часточка
hilus – ворота органа
to supply – доставляти, постачати
vessel – судина

2. Прочитати текст та перекласти українською мовою, користуючись словником

RESPIRATORY ORGANS

Respiratory organs consist of larynx, trachea, bronchi, lungs and pleura.

The larynx, or voice organ, extends from the root of the tongue to the trachea, at the level of the sixth cervical vertebra. It occupies the upper and front region of the neck, opening above into the pharynx, and below into the trachea.

The larynx is formed by cartilages. The trachea is a continuation of the larynx, from below the cricoid cartilage, opposite the sixth cervical vertebra. It is a cartilagineous and membraneous tube 4 1/12 inches long. The tube is incomplete behind — the space is completed by a fibrous membrane. Internally it is lined by mucous membrane. It bifurcates into two bronchi at the level of the fourth dorsal vertebra.

The bronchi are two in number. In structure they resemble the trachea. They divide into smaller branches — bronchia tubes which subdivide again, until they become so small as to be invisible to the naked eye.

Both lungs are covered by a thin serous membrane, the pleura. At the root of each lung, it is reflected back covering the walls of the chest, diaphragm, and pericardium. The lungs are the principal organs of respiration. They are two in number, and are situated in the thorax, filling the entire cavity. Each lung is cone-shaped.

The lungs are divided by depressions into lobes — the lobes are subdivided again into lobules. The left lung is slightly smaller than the right. It has two lobes. The right lung is rather larger and heavier. It has three lobes. About the centre of each lung is the hilus — an opening where the main vessels, forming the root of the lung, enter and leave. Each root is composed of the following parts: bronchus, pulmonary artery, pulmonary veins, bronchial vessels, nerves, and lymphatics.

Pulmonary artery brings de-oxygenated blood from the right side of the heart to the lungs. It divides into right and left pulmonary arteries, each passing to the corresponding lung.

The right pulmonary artery divides into three smaller branches, supplying the three lobes.

The left pulmonary artery divides into two smaller branches supplying the two lobes.

The pulmonary veins convey oxygenated blood from the lungs, finally emptying into the left side of the heart.

The bronchial arteries convey blood for the nutrition of the lung substance.

Post-Text Exercises

1. Скласти план тексту та записати у зошит

2. Працюючи в парах, знайти в тексті речення про легені

3. Працюючи в парах, знайти в тексті речення про судини легень

4. Дати відповідь на питання та записати у зошит

1. What do the respiratory organs consist of?

2. Where is the larynx situated?

3. What is the principal organ of respiration?

4. What pulmonary vessels do you know?

5. Працюючи в парах, зрівняти праву та ліву легені

Unit 11

Role of the Nervous System

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

entire – весь, повний

to link – пов'язувати

to ensure – гарантувати, забезпечувати

integrity – цілісність

to lead – вести, проводити

consequently – внаслідок

requirement – потреба, вимога

to cause – викликати

flow – потік, течія

loss – втрата

to perceive – сприймати

to adapt – пристосовувати

surrounding – оточуючий

cerebral cortex – кора головного мозку

2. Прочитати текст та перекласти українською мовою, користуючись словником

ROLE OF THE NERVOUS SYSTEM

The nervous system regulates the activities of the different organs and of the entire organism. Muscular contractions, glandular secretion, heat action, metabolism and the many other processes continuously operating in the organism are controlled by the nervous system.

The nervous system links the various organs and systems, coordinates all their activities and ensures the integrity of the organism.

The working of each organ or system of organs may be affected by various conditions. A change in the function of one organ or system of organs leads to changes in the functions of other organs and systems. For example, during physical work involving intensive muscular contraction the metabolism in the muscles increases, which consequently increases the requirement in nutrients and oxygen. A reflex response causes the heart and lungs to work more intensively, with the result that the flow of the blood to the muscles increases. At the same time heat production and heat losses increase, the excretory organs work harder.

The unity of the organism and its external environment is affected through the nervous system. All the outside stimuli are perceived by the nervous system through the sense organs. In response to the stimuli the functions of the various organs change and the organism adapts itself to its surroundings or, as I. Pavlov put it, the organism is equilibrated with the external environment. This equilibrium forms the basis of the organism's vital activities. Thus in response to the ingestion of food the activity of the digestive glands increases and is adapted to the character of the

ingested food. A rise in temperature of the surrounding air causes an increased flow of blood to the skin and greater perspiration, which prevents overheating of the organism.

It should be remembered, that unlike animals, man can himself considerably change his external environment, Man's brain is the material basis of thinking and speech. I. Pavlov demonstrated that man's so-called psychic activity is based on physiological processes operating in the cerebral cortex.

Post-Text Exercises

1. Скласти план тексту, використовуючи речення з тексту, та записати у зошит
2. Працюючи в парах, знайти в тексті речення про нервову систему
3. Знайти в тексті англійські відповідники українським реченням та записати у зошиті
 1. Нервова система з'єднує різноманітні органи і системи організму.
 2. Усі зовнішні імпульси нервова система отримує від органів чуття.
 3. Підвищення температури зовнішнього середовища викликає підвищення току крові до шкіри.
4. Працюючи в парах, обговорити єдність організму і зовнішнього середовища
5. Розповісти про роль нервової системи

Unit 12

The Heart

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- heart – серце
- to occupy – займати
- transparent membrane – прозора мембрана
- to attach – прикріпляти
- to suspend – висіти, бути підвішеним
- auricle – передсердя
- ventricle – шлуночок
- septum – перетинка
- principal cavity – загальна порожнина
- distended – розширений
- triangular – трикутний
- inner surface – внутрішня поверхня

2. Прочитати текст та перекласти українською мовою, користуючись словником

THE HEART

The heart is the central organ of the circulatory system. It occupies the mediastinum, and is situated between the lungs.

The heart is a powerful muscular organ, hollow in the centre. In shape it is conical. The pericardium is a transparent membrane, which covers the heart and attaches itself to the root of the large blood vessels: it then reflects back, forming a completely closed sac, in which the heart is suspended.

The heart is divided into four cavities: a right auricle and ventricle, a left auricle and ventricle.

The two sides are completely separated from each other by a muscular septum, but the right auricle and ventricle communicate with each other. The same applies to the left side. The left side of the heart is altogether stronger, thicker and more powerful than the right.

The auricles comprise the two upper chambers of the heart. The left auricle occupies the left and posterior part of the base. The right auricle — the right and anterior portion. The right is the larger of the two, although its walls are thinner than those of the left.

Each auricle consists of two parts — a principal cavity and a smaller one, the appendix auricle. Externally, these latter appear as soft ear-shaped structures which lie closely against the base of the heart at each side. When filled with blood they become distended, and so lose their flattened appearance.

The ventricles form the lower and larger cavities of the heart. The right ventricle is triangular in shape, its walls forming the main part of the anterior surface.

The left ventricle is longer, more conical in shape, and its walls nearly three times as thick as those of the right.

Between the left auricle and ventricle is the mitral valve, a structure smaller to the tricuspid valve, but altogether stronger. Passing out of the left ventricle is the aorta. This is the largest artery of the body, it conveys blood to all parts, except the lungs.

At the opening is placed the aortic valve. The structure is similar to that of the pulmonary valve, but stronger.

The inner surface of the heart, including the valves, is covered by a thin transparent membrane — the endocardium.

Post-Text Exercises

1. Працюючи в парах, знайти в тексті речення про передсердя
2. Знайти в тексті речення, що відображають різницю між шлуночками серця та записати у зошит
3. Працюючи в парах, знайти в тексті речення про клапани
4. Дати відповідь на питання та записати у зошит
 1. What is the role of the heart?
 2. What are the cavities of the heart?
 3. What is the difference between the left and the right side of the heart?

Unit 13

Blood

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- liquid state – рідкий стан
- fluid – рідина
- visible – видимий
- mature – зрілий
- non-nucleated – без'ядерний
- to occur – знаходитись, відбуватись
- dissolved – розріджений
- varying quantities – різна кількість
- clotting – згортання
- solution – розчин
- to reproduce – відтворювати
- to destroy – руйнувати
- to be less than – бути менше, ніж
- to take up – вбирати
- to swell – розпухати
- to burst – розриватись

2. Прочитати текст та перекласти українською мовою, користуючись словником

BLOOD

In its liquid state blood contains a fluid called plasma plus microscopically visible cellular elements — 1) erythrocytes (red blood cells) of which 4,5 to 5 million are found in each cubic millimetre: the mature erythrocytes are non-nucleated red cells. 2) leucocytes (white blood cells) from 4,000 to 10,000 per cubic millimetre are of different types: leucocytes have nuclei. 3) thrombocytes (blood platelets) are much smaller fragments of protoplasm containing nuclear material. About 400,000 platelets occur per cubic millimetre.

The plasma which is mostly water, also has a very complex chemical nature. It contains dissolved gases — oxygen, carbon dioxide, and nitrogen. The proteins include albumin, globulin, and fibrinogen. The lipids include lecithin, fats and cholesterol. Carbohydrates are present as glucose, and blood also contains nitrogenous substances and inorganic salts. All these substances are found in varying quantities. The plasma is the fluid portion of the blood before clotting has occurred. The serum is the fluid portion of blood remaining after the coagulation process is complete.

RED BLOOD CELLS

Red blood cells, called also erythrocytes are filled with a solution of a red material known as haemoglobin. They contain no nucleus and have lost the power of reproducing themselves. After an active life of 120 days they are destroyed. Red cells, when placed in solution whose salt concentration is less than that of the haemoglobin, take up water, swell and burst.

Post-Text Exercises

1. Скласти план тексту та записати у зошит
2. Працюючи в парах, знайти в тексті речення про плазму
3. Знайти в тексті англійські відповідники українським реченням та записати у зошиті
 1. У кубічному міліметрі зустрічається 400 000 тромбоцитів.
 2. Вона (плазма) містить розчинені гази - кисень, CO₂ і азот.
 3. Вони (еритроцити) не мають ядра і втратили здатність відтворювати себе.
 4. Після активного життя в 120 днів вони руйнуються.
4. Працюючи в парах, дати відповідь на питання та записати у зошит
 1. What is the composition of the blood?
 2. What does plasma contain?
 3. What is the difference between the plasma and the serum?
 4. What blood cells are nucleated?

Unit 14

Functions of the Blood

Pre-Text Exercises

1. Вивчити напам'ять слова та словосполучення

- to perform – виконувати
- nutrients – поживні речовини
- to carry away – виводити, видаляти
- waste products – відходи
- small intestine – тонкий кишківник
- to eliminate – видаляти з організму
- excretory organ – видільний орган
- respiration – дихання
- to deliver – доставляти
- to inhibit – пригнічувати
- protective – захисний
- property – властивість
- to distribute – розподіляти
- to maintain – підтримувати
- movement – рух
- excess – надлишок
- slight – незначний
- to involve – включати в себе
- loss – втрата
- to prove – опинитись

2. Прочитати текст та перекласти українською мовою, користуючись словником

FUNCTIONS OF THE BLOOD

The blood performs an important function in metabolism; it delivers nutrients to the tissues of all the organs and carries the waste products away. Nutrients are absorbed into the blood from the small intestine. The waste products are eliminated from the blood through the excretory organs.

The blood performs a most important function in respiration: it delivers oxygen to the tissue of the organs and carries carbon dioxide away. Oxygen enters the blood through the lungs. Carbon dioxide is eliminated from the blood mainly through the lungs.

The blood effects humoral regulation of the activities of various substances (hormones, etc.) round the organism. Some of these substances stimulate while others inhibit the work of the organs.

The blood also has a protective function: it contains cells which possess properties of phagocytosis and special products called antibodies, which play a protective role.

The blood takes part in distributing heat within the organism and in maintaining a constant body temperature. Because of the movement of blood through the blood vessels heat is transported from warmer parts of the body to cooled parts. The blood gives off the excess of heat into the external environment, and the organism therefore does not become overheated.

The amount and composition of blood in a healthy person are relatively constant; they are subject to slight variations depending on the external conditions of the organism, but quickly return to normal. Various diseases cause considerable changes in the blood. The character of these changes may help in diagnosing the disease, and so a complete medical examination necessarily involves a blood test. If all tissues of the organism are to function normally the amount and composition of blood must be relatively constant.

It should be noted that part of the blood does not circulate through the blood vessels, but is stored in so-called blood depots (in the capillaries of the spleen, liver and subcutaneous tissue). Under different conditions the volume of blood circulating in the organism may increase or decrease through a change in the volume of depot blood. For example, during muscular work in cases of blood loss the blood from the depots is released into general circulation.

The total amount of blood may temporarily increase after the intake of a large amount of fluid and absorption of water from the intestines. However, the excess of water is comparatively quickly eliminated from a healthy organism through the kidneys. A temporary decrease in the amount of blood is observed in case of bleeding. A rapid loss of a large amount of blood (one-third to half of the total volume) may prove fatal.

Post-Text Exercises

1. Працюючи в парах, скласти план тексту

2. Знайти в тексті англійські відповідники українським реченням та записати у зошит

1. Кров бере участь в розподілі тепла в організмі.
2. Вона (кров) доставляє кисень до тканин органів і забирає CO₂.
3. У здорової людини кількість крові і її склад відносно постійні.
4. Загальний обсяг крові може тимчасово збільшитися після всмоктування великої кількості рідини.
5. Тимчасове зменшення обсягу крові спостерігається при кровотечі.

3. Працюючи в парах, обговорити функції крові

4. Дати відповідь на питання та записати у зошит

1. How are the waste products eliminated from the blood?
2. Why is heat transported from warmer parts of the body to cooled parts?
3. What can cause considerable changes in the blood?
4. Does all blood circulate through blood vessels?
5. When does the total amount of blood increase and decrease?

Unit 15

Taking a history

Pre-text Exercises

1. Прочитайте і запам'ятайте слова, словосполучення

- case history – історія хвороби
- available information – доступна інформація
- past history – перенесені захворювання
- family history – родинний анамнез
- accurate diagnosis – точний діагноз
- to prescribe – призначати
- trouble – хвороба, турбота
- headache – головний біль
- to establish – встановлювати
- to affect – уражати
- fits – конвульсії
- faint – непритомність
- disturbance – порушення
- to elicit – виявляти
- relevant – доречний
- to obtain – отримувати
- heartburn – печія
- to sneeze – чхати
- to cause – спричиняти
- complaint – скарга

2. Проаналізувати структуру термінів, знайти префікси, суфікси та перекласти рідною мовою information, exacerbation, bleeding, stiffness, movement, hereditary, hemorrhage, available, disturbance, unquestionable, recognition, practitioner, incontinence, predisposition, increased.

3. Підібрати англійські еквіваленти українським словосполученням та записати у зошит

- | | |
|------------------------------|-----------------------------------|
| 1. біль в черевній порожнині | a) case history/patient's history |
| 2. генетичне захворювання | b) previous disease |
| 3. поставити діагноз | c) general symptoms |
| 4. надавати інформацію | d) surgical intervention |
| 5. теперішня скарга | e) abdominal pain |
| 6. дана проблема | f) to provide information |
| 7. попереднє захворювання | g) accurate diagnosis |
| 8. системне обстеження | h) family history |
| 9. загальні симптоми | i) genetic disease |

10. хірургічне втручання	j) systemic enquiry
11. точний діагноз	k) to establish/make diagnosis
12. родинний анамнез	l) present complaint
13. історія хвороби	m) present problem
14. перенесені захворювання	n) past medical history
15. стан до шпиталізації	o) emergency admission
16. невідкладна шпиталізація	p) initial symptoms
17. первинні симптоми	q) treatment
18. лікування	r) condition prior to admission

4. Прочитати та перекласти текст, користуючись словником

TAKING A HISTORY

Traditionally doctors took the domination role during consultations; for many, a doctor's word is God and, as such, their professional expertise unquestionable.

When the patient comes for advice or treatment, the physician must make diagnosis of the case. Diagnosis is the recognition of a disease. On order to come to a diagnosis the practitioner collects all available information of the patient. The disease being recognized, the appropriate treatment in prescribed and carried out.

The object is to get from the patient every item of information. Thus, the initial part of clinical examination and its main aim is to find out the patients' present problem and how it affects the quality of their life.

The history is a review of the patient's current state of health and past medical condition. The patient's history has a traditional format and commonly used sequence.

History of presenting complaint. This is a description of symptoms. The onset, severity, progression, associated features.

History of present illness. The patient gives an account of recent events in his/her own words which in this way is recorded in the history sheet.

Systemic enquiry. The history is taken of the main symptoms of the major bodily systems:

General: mood, fatigue, fever, sweats, rashes.

Cardiovascular system: chest pain, palpitations.

Respiratory system: shortness of breath, cough, sputum.

Gastrointestinal system: nausea, vomiting, abdominal pain, heartburn, change in bowel habit.

Genitourinary system: nocturia, frequency, incontinence, change in color/smell of urine, menstrual difficulties.

Central nervous system: headaches, weakness, dizziness, fits, faints.

Past medical history. Patients are asked about their previous medical/surgical diseases.

Drug history and allergies provides information on any medication prescribed and self-administered drugs.

Family history provides information about any predisposition to disease, and relevant information on relatives. It remains one of the most powerful "genetic test" to identify individuals at risk from inheritable diseases. Early identification of families with increased risk for chronic diseases such as: heart disease, diabetes and certain cancers can often improve, delay or even prevent adverse health outcomes to individual members.

Social history is collected about the patient's occupational social, personal factors (habits, employment, housing sports, hobbies, physical exercise, the use of alcohol, tobacco). These aspects allow the doctor to identify contributory factors to the patient's illness and help to evaluate the patient's sources of support, likely reactions to illness, coping mechanisms, strength and fears. During physical examination the doctor may have a good opportunity to observe the general appearance, attitude, behavior of the patient, and these may be very important and informative.

Post-Text Exercises

1. Прочитати текст повторно та знайти речення, що висловлюють його головну думку
2. Працюючи в парах, замість крапок, вставити необхідні слова або словосполучення, подані у дужках
Clinical examination, used sequence, diagnosis, professional expertise, physical examination.
The recognition of a disease is ...
The main aim of ... is to find out the patient's present problem and how it affects quality of their life.
The patient's history has commonly ...
The doctor may have a good opportunity to observe the general appearance, attitude, behavior of the patient during ...
For many patients a doctor's word and their ... are unquestionable.
3. Скласти 8 питань до тексту та записати їх у зошит. Працюючи в парах, дати відповідь на запитання.
4. Прочитати і перекласти випадки історії хвороби, користуючись словником. Обговорити історії хвороби, працюючи в командах.

Physicians are Taking Histories of Cases

Case 1

Identification (of a patient):

Andrew Smith; 68-year-old male; 10, Lime Street, Chicago.

The first admission

CC(Chief complaint): Pain in the stomach.

What ails you?

Pain in my belly, Doc. I didn't get a wink of sleep last night. Now I was shivering with cold now I was awfully hot.

HPI (History of Present Illness):

How long have you had such pain?

A couple of weeks.

Did you have feeling of sickness?

Yes, sir. I threw up on two or three occasions.

Have you had a burning sensation in the lower part of your chest, a heartburn, I mean?

Yes, Doc, especially after a rich food.

Any trouble with your bowels?

Yes, sir. I had black bowel movement and a dark urine too. I thought it was something amiss with my health and I wanted to find out what was the matter with me. That's why I have come here.

PH (Past History):

What kind of sickness did you have in the past?

I had measles, whooping-cough, and scarlet fever when I was a kid. I had pneumonia last year.

Have you ever been operated on?

Five years ago I had urethral resection and received two pints of blood.

No bad after-effects of the operation?

No.

FH (Family history):

Are you married?

Yes, sir.

Have you any children?

A boy and a girl.

Are they all right?

They seem to be in good health.

And your father and mother? Are they alive?

No, my father died of diabetes, and mother of old age. She was very strong and healthy.

Do you have brothers and sisters?

We are four in the family: two brothers and two sisters; my brother is living and well, and both sisters are in good health too.

I see ... Well, lie down on the examining table, I'll carry out a local examination.

Case 2

Identification (of a patient):

Ann Brag; 24-year-old female; 32, Forest Street, Missouri. The first admission.

CC (Chief Complaint): Difficulty in breathing.

What brings you here, Mrs. Brag?

I have episodes of wheezing. Difficulty in breathing, which comes on at night, keeps me awake. Those episodes of shortness of breath become more and more frequent.

HPI (History of Present Illness):

When did you feel the onset of the disease? How long has it been troubling you?

I was taken ill when I was 5 years old. My parents sought advice from our family doctor about my episodes of wheezing. He advised a change of air and so they took me to the sea shore.

How did you feel there?

Just fine. I had no trouble while staying there for more than 15 years. But when we moved inland my breathing ailment began again.

What treatment did your physician place you on?

On inhalation, but my wheezing progressed by and by and I was admitted to the clinic.

PH (Past History):

What childhood disease had you?

Measles, mumps and chicken-pox.

No operation?

No, Doctor.

Couldn't you tell me more details about your present illness?

Why, of course ... First I had episodes of wheezing when I was 5. My parents told me that I had shortness of breath after successive attacks of children diseases.

FH (Family History):

Are you married?

Yes.

Have you children?

No.

Are your parents alive?

Yes, they seem to be healthy.

And your grandparents?

No, they both died of heart trouble when they were elderly.

And your uncles and aunts?

They are still enjoying good health.

So you have never heard your people talk about asthma in your family?

Never.

Case 3

Identification (of a patient):

Ann Brag; 26-years-old female; 32; Forest street, Missouri. The second admission.

CC (Chief Complaint): Shortness of breath. Bronchial asthma.

What brings you, Mrs. Brag, to our clinic this time?

I have episodes of wheezing again, Doctor Brill. Difficulty of breathing becomes more severe every day.

HPI (History of Present Illness):

When did you feel again the onset of attacks?

About a month today. I felt quite myself before I caught cold. Generally for the most part I don't feel well in cold and damp. Rainy weather. It has an ill effect on me. My disease becomes worse, more severe.

Aren't you suffering from headaches as before?

I'm, doctor Brill, but a tablet of aspirin has shooting effect on me ... You know, Doctor, what I badly suffer from, what most annoys, irritates me – it's tobacco smoke.

Goodness gracious! .. You smoke?!

No, not I. It's my husband! He smokes a lot. He is a heavy smoker ...

You need fresh and pure air, Mrs. Brag. Doesn't he know that?

Certainly he does, but he is too careless.

Perhaps he doesn't know your diagnosis? Bronchial asthma is a serious disease. I advice you a change of air, Mrs. Brag. This is the most I can do. Go to the California coast again – but this time move there for good, if you don't want to suffer from your disease any more.

5.Працюючи в парах, скласти діалог «У лікаря», використовуючи фрази і вирази подані нижче

Introduction

Come in, please. (You may. Yes, yes.)

Good morning (afternoon, evening)!

Do you speak English? (Can you speak English?)

Do sit down. (Sit down, please.)

Next, please! (Next!)

Will you wait a minute, please?

Don't open the door, please.

Passport Data

What's your full name? (What's your surname?)

How old are you? (Your age?)

Will you tell me your address? (Where do you live? In what street do you live?)

Would you tell me about your occupation? (What is your occupation? Where do you work? Your profession?)

Are you married or single (divorced, widowed)? (Do you have a wife/husband? Do you have a family? How many children do you have (have you got)?)

What's your education? (Your education, please. Did you go to school?)
Complaints What are you complaining of? (What do you complain of? Your complaints, please? What troubles you? What exactly is the trouble?

What's wrong? Have you had any pain? Where?)

Present History

Where do you feel the pain? (Is it painful here? That painful? Show me the exact point, please.)

Have you been ill for a long time? How long? (How long have you felt pains here? How many days? A month? A week?)

What kind of pain? (Is your pain (cough, etc.) constant, severe, mild, etc.? With or without intervals?)

Does the pain occur before or after eating? (When does the pain begin? When do you feel the pain?)

Where does the pain radiate to? (Does the pain radiate? Where to? Where else do feel pains?)

When did you fall ill? (When did you first feel bad (unwell, dizzy, etc.)?)

How did the disease develop? (When did you begin to feel worse?)

What makes you feel better? (In what position do you feel better? What helps you? Show me, please.)

Tell me, please, did you take any drug (medicine)? (Did you take any pills?)

What drug (medicine) did you take? (What were they? Give me the name of the drug.)

Did it relieve your symptoms? (Did you feel better after tablets? Did the drug help you? What drug (medicine) helps you?)

Have you ever been injured? (Were you injured? Were you operated on? Have you had any injures? Are you after any operation? After an operation?)

Did you consult any doctor?

What was his diagnosis? (What did he say?)

Past History

Were you in good health before? (Have you had any illness before?)

How did you develop as a child? (Were you a normal child? Did you have rickets?)

Are you the eldest in your family? What diseases did you have in your childhood (when you were a child)? Did you have scarlet fever (mumps, etc.)?

Did you suffer from any grave disease? (Have you ever had tuberculosis or syphilis (infectious diseases, heart attacks, fits, fainting, spells, etc.)?)

And any of your relatives?

When did it happen? (When was it?)

Would you tell me about any complications you had? (Did you have any complications after your illness?)

Did you undergo any operations (Were you operated on?)

What living conditions do you have? (Do you live in a good house?)

You don't smoke, do you? (Are you a heavy smoker? Do you smoke?)

Do you have a good appetite? (Is your appetite good?)

What about alcohol? (Do you drink any whisky, beer, etc.?)

Do you suffer from cough? (Do you cough?)

Examination of a patient

Open your mouth, will you? (Open your mouth, please. Open your mouth.)

Put out your tongue. (Stick out your tongue. Show me your tongue. Just your tongue.)

Your tongue is rather coated. (Your tongue is not clean.)

Say "Aah", please. (Say after me: "Aah". "Aah", please.)

Turn your head, will you? (With your head to the window. Look at the door (window).)

Try to swallow. (Swallow, please. Do like that, please.)

Follow my finger with your eyes. (Look at my finger. Don't move your head but follow my finger to the right.

Now to the left ... up down.)

Do you have good eyesight (hearing)? (Do you have good eyes (good ear)?)

Come here if you can. (Here, please.)

Try to relax, please. (Be quiet.)

Let me feel your pulse. (Put your hand on the table, please.)

Will you stand still? (Stand still, please.)

Don't move your shoulders. (Don't move.)

I am going to examine you. (I'll examine you.)

Strip to the waist, please. (Take your clothes off, Undress.)

Unfasten your outer garments, please. (Just remove your shirt, will you? Your shirt!)

Would you breathe deeply? (Breathe deeper. Breathe.)

Try to take a deep breath, please. (Again, Breathe in.)

Breathe out, please. (Breathe out.)

6. Користуючись словником, перекласти, вивчити зразки форм для написання анамнезу захворювання.

Заповнити їх відповідною інформацією

Orgeon Medical Group Medical history form

Date _____ Patient Name _____ Age _____ Date of Birth _____

Other Physicians involved in my
care _____

Referred to this office by _____

What areas or issues would you like to discuss today: (Please limit to 3 items)

1. _____ 2. _____
 3. _____

PREVENTATIVE HEALTH STATUS:

Date of last physical exam: _____ Last eye exam: _____ Last dental exam: _____

Have you ever had a colonoscopy or sigmoidoscopy? yes no When/Findings: _____

Have you ever had a bone density test? yes no When/Findings: _____

Last immunizations: (please give date of most recent vaccination or series completion date)

Tetanus: _____ Hepatitis B: _____ Hepatitis A: _____ HPV: _____ Influenza: _____

Pneumonia: _____ Shingles: _____ TB skin test result: _____ Date: _____

FOR WOMEN ONLY:

Date of last period: _____ Last Pap: _____ Age periods begin: _____ Age at start of menopause: _____

Have you had a mammogram? yes no Most recent date _____ Result _____

Birth control method: _____

Have you had any pregnancies? yes no Total number _____ Miscarriages/Abortions _____

Problems during pregnancies: _____

FOR MEN ONLY:

Have you had a PSA blood test and/or prostate exam? yes no Last Date _____ Result _____

SOCIAL HISTORY

Occupation: _____ Former Regions of Residence: _____

Marital Status: Single Married Domestic Partnership Divorced Widowed

Living Situation: Alone Roommate Spouse Parents Significant Other With Children

Have you been in a relationship where you were hurt, threatened or made to feel afraid? yes no

Do you drink alcohol? yes no How many per week? _____ Quit/When _____

Do you drink alcohol? yes no How many per week? _____ Quit/When _____

Do you drink alcohol? yes no How many per week? _____ Quit/When _____

Do you drink alcohol? yes no How many per week? _____ Quit/When _____

Do you drink alcohol? yes no How many per week? _____ Quit/When _____

7. Користуючись словником, перекласти, вивчити зразки форм для написання анамнезу захворювання. Заповнити їх відповідною інформацією

**Orgeon Medical Group
 Medical history Form**

Today's Date _____ Patient Name _____ Date of Birth _____

FAMILY HISTORY

Relation	If living: Age	If Deceased: Age at Death	Cause
Father			
Mother			
Brother or sister			
1.			
2.			
3.			

Has any of your immediate family ever had: (if yes, indicate relationship and age of onset)

Allergy/Asthma	Arthritis/Gout
Cancer	Depression
Diabetes	Epilepsy/Seizures
Glaucoma	Heart Disease/Coronary Artery Disease
High Blood Pressure	Liver Disease
Kidney Disease	Mental Illness
Alcohol/Substance Abuse	Migraine Headaches
Overweight	High Cholesterol
Stroke	Thyroid Disease
Tuberculosis	Ulcers
Bleeding Disorder	Colon Polyps

Other family medical history: _____

For Clinician Use

8. Користуючись словником, перекласти, вивчити зразки форм для написання анамнезу захворювання. Та заповнити їх відповідною інформацією

Orgeon Medical Group Medical History Form		
Today's Date _____	Patient Name _____	Date of Birth _____
PERSONAL MEDICAL HISTORY: Have you ever been diagnosed with the following? (Please circle)		
Heart disease: <input type="checkbox"/> murmur <input type="checkbox"/> angina/ coronary disease <input type="checkbox"/> congestive heart failure <input type="checkbox"/> rheumatic fever <input type="checkbox"/> valve replacement <input type="checkbox"/> irregular heartbeat <input type="checkbox"/> heart attack <input type="checkbox"/> high blood pressure	Respiratory: <input type="checkbox"/> asthma <input type="checkbox"/> allergies/ hay fever <input type="checkbox"/> emphysema/COPD <input type="checkbox"/> chronic bronchitis <input type="checkbox"/> pneumonia <input type="checkbox"/> asbestos exposure <input type="checkbox"/> sleep apnea	Mental Health/Neurology: <input type="checkbox"/> anxiety <input type="checkbox"/> depression <input type="checkbox"/> alcoholism <input type="checkbox"/> drug abuse <input type="checkbox"/> other mental illness <input type="checkbox"/> migraines/headaches <input type="checkbox"/> stroke <input type="checkbox"/> seizures <input type="checkbox"/> paralysis
Infections Disease: <input type="checkbox"/> AIDS or HIV positive <input type="checkbox"/> MRSA infection <input type="checkbox"/> tuberculosis <input type="checkbox"/> sexually transmitted disease	Gastrointestinal: <input type="checkbox"/> ulcers <input type="checkbox"/> colon polyps <input type="checkbox"/> gallstones <input type="checkbox"/> hiatal hernia <input type="checkbox"/> hepatitis, type _____ <input type="checkbox"/> hemorrhoids <input type="checkbox"/> irritable bowel syndromes <input type="checkbox"/> colitis <input type="checkbox"/> diverticulosis <input type="checkbox"/> gastrointestinal bleeding	Metabolic/Nutrition: <input type="checkbox"/> diabetes <input type="checkbox"/> high cholesterol <input type="checkbox"/> anemia <input type="checkbox"/> thyroid problem <input type="checkbox"/> bleeding disorder
Musculoskeletal: <input type="checkbox"/> rheumatoid arthritis <input type="checkbox"/> gout <input type="checkbox"/> osteoarthritis <input type="checkbox"/> fibromyalgia	Kidney/Bladder: <input type="checkbox"/> stones <input type="checkbox"/> prostate disorder <input type="checkbox"/> incontinence <input type="checkbox"/> infection	Cancer: <input type="checkbox"/> breast cancer <input type="checkbox"/> cervical cancer <input type="checkbox"/> ovarian cancer <input type="checkbox"/> colon cancer <input type="checkbox"/> skin cancer <input type="checkbox"/> prostate cancer <input type="checkbox"/> other cancer (type) _____ <input type="checkbox"/> None of the above

Have you ever had a blood transfusion? yes no If yes, when? - _____

Childhood illnesses: _____

Hospitalizations, operations, serious illnesses or injuries: (omit pregnancies)

	Date		Date
1. _____	_____	3. _____	_____
2. _____	_____	4. _____	_____

Present Medications: (Include birth control pills and non-prescriptive items such as vitamins, aspirin, herbs. etc.)

<u>Times/Day</u>	<u>Name</u>	<u>Dose</u>	<u>Times/Day</u>	<u>Name</u>	<u>Dose</u>
1. _____	_____	_____	5. _____	_____	_____
2. _____	_____	_____	6. _____	_____	_____
3. _____	_____	_____	7. _____	_____	_____
4. _____	_____	_____	8. _____	_____	_____

Drug allergies:

<u>Medication</u>	<u>Type of Reaction</u>	<u>Medication</u>	<u>Type of Reaction</u>
1. _____	_____	1. _____	_____
1. _____	_____	1. _____	_____

9. Користуючись словником, перекласти, вивчити зразки форм для написання анамнезу захворювання. Заповнити їх відповідною інформацією

**Orgeon medical Group
Medical History form**

Today's Date _____ Patient Name _____ Date of Birth _____

REVIEW OF SYSTEMS: Check any of the following symptoms have experienced WITHIN THE PAST YEAR

GENERAL:

- change in heat & cold tolerance
- persistent fever
- chills/cold intolerance
- excess appetite
- increased thirst
- lack of appetite
- night sweats
- swollen glands
- unusual weakness
- unusual fatigue
- weight change
increase _____
decrease _____
- Other _____
- None of the above

ALLERGY:

- sneezing
- environmental allergy
- food allergy _____
- Other _____
- None of the above

SKIN:

- ulcers
- bruise easily
- change in skin or mole
- dryness of skin
- rash of hives
- nail change
- unusual hair loss
- Other _____
- None of the above

EYES:

- eye pain
- blind spells (in one eye)
- change in vision
- contact lenses
- eye infection
- wear glasses
- Other _____
- None of the above

For Clinician Use

EARS/NOSE/THRO

- AT:**
- earache
 - hearing loss
 - ear infection or drainage
 - bleeding gums
 - hoarseness
 - neck swelling/lumps
 - sores in mouth
 - nose bleeds
 - sinus trouble
 - Other _____
 - None of the above

BREASTS:

- discharge/bleeding
- nipple changes
- lump
- pain
- Other _____
- None of the above

HEART:

- white, blue or purple discoloration of hands or feet
- calf pain when walking
- chest discomfort/pain
- irregular heart beat
- racing of fluttering heart
- swollen feet or ankles
- varicose veins
- Other _____
- None of the above

LUNGS:

- shortness of breath
- persistent cough
- wheezing
- cough up blood
- cough up phlegm
- difficulty breathing
- None of the above

GASTROINTESTIN

- AL:**
- belching
 - bloody or black stools
 - change in stools
 - constipation
 - difficult swallowing
 - excessive gas
 - food intolerance
 - heartburn/esophageal reflux
 - hemorrhoids
 - loose bowels/diarrhea
 - nausea
 - recurrent abdominal pain
 - vomiting
 - Other _____
 - None of the above

URINARY:

- change in urinary stream
- blood in urine
- difficulty urinating
- frequency
- leaking urine
- pain or burning on urination
- unusually large volumes of urine
- up at night to urinate? how often? _____
- incontinence
- sexual difficulty
- Other _____
- None of the above

FEMALE:

- heavy menstrual bleeding
- irregular menstrual periods
- discharge
- premenstrual symptoms
- Other _____
- None of the above

BONES AND

- JOINTS:**
- back or neck pain
 - cramps in muscles
 - painful or stiff joints
 - pain down backs of legs
 - pain in legs with walking
 - swelling in legs
 - redness of joints
 - Other _____
 - None of the above

MOOD/MENTAL

- HEALTH:**
- depressed or sad
 - irritable or angry
 - anxious, tense, or worried
 - fearful
 - sleep problems
 - loss of interest in activities
 - fatigue
 - suicidal thoughts
 - compulsive behaviors
 - concentration/memory problems
 - marital, family or work problems
 - stress
 - Other _____
 - None of the above

NEUROLOGIC:

- coordination problems
- difficulties in speaking
- dizziness
- fainting spells
- frequent headaches
- loss of balance
- loss of sensation
- muscle weakness
- numbness or tingling
- Other _____
- None of the above

Reviewed by _____

Date _____

10. Встановити відповідність між термінами та їх визначеннями. Заповнити таблицю

- | | |
|---|-----------------|
| 1. the long-term results of an illness or treatment | a) disease |
| 2. identifying several illnesses which the patient may have | b) symptoms |
| 3. things wrong with the body which the patient complains of or experiences | c) history |
| 4. a study of the patient's body | d) examination |
| 5. the causes leading to an illness | e) prevention |
| 6. an unusual feature which may be worrying or | f) consultation |

dangerous

- | | |
|--|---------------------------|
| 7. a meeting between patient and doctor to discuss problems | g) abnormality |
| 8. the identification of a particular illness | h) sequelae |
| 9. a change in the structure or function of the organs or tissue of the body | i) aetiology |
| 10. taking away the cause of illness or finding it early | j) complications |
| 11. a group of signs which are characteristic of a particular illness | k) prognosis |
| 12. additional problems to the original illness | l) signs |
| 13. Likely outcome of an illness | m) syndrome |
| 14. a patient's medical background, problems, behavior and lifestyle | n) differential diagnosis |
| 15. what the doctor can see of the illness | o) diagnosis |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
h

11. Працюючи в парях, скласти діалог, використовуючи наступні питання

- a) And since that incident?
- b) Now, can you tell me about your lifestyle? Do you smoke or drink?
- c) Have you experienced any problems in your legs at all?
- d) What's the problem with your chest?
- e) Can you describe this pain?
- f) What seems to be the trouble?
- g) And how long did the pain last?
- h) Do you think the weather affects it?
- i) And what about your family? Is there any history of heart problems or blood pressure problems?
- j) I see? And how is business at the moment?
- k) Can you tell me a bit more about these pains?
- l) Have you got a job?

1. Good morning Mr Lin. My name's Dr Frank. What seems to be the trouble?
It's my chest, doctor.

2. _____
Well, I sometimes get pains in it.

3. I see. _____
Well it started when I was on holiday and I had to climb a steep hill from the town to our hotel. I got a bad pain in my chest.
4. _____
It was across the front of my chest and sort of up into my neck. My arms felt heavy and I couldn't get my breath.
5. _____
Only a few minutes and then I was OK again.
6. _____
I've felt in several times recently, usually when I'm lifting thins or rushing. I just can't get my breath.
7. _____
Yes, on cold days it's worse.
8. _____
I smoke the occasional cigar and I like a dram in the evening. But I'm not a heavy drinker!
9. Of course not! _____
I have my own business. A small printing company.
10. _____
Not very good, actually. There's too much competition from the big companies.
11. Mm! _____
No, not that I know of.
12. _____
No, I haven't.
OK. Thank you Mr Lin. Now I'd like to examine you if you don't mind.

12. Працюючи в парах, встановити відповідність між питанням та відповіддю

- | | |
|---|--|
| 1. Can I ask how old you are? | i) I cycle to work normally. |
| 2. How long have you been married? | b) About twenty a day. |
| 3. What form of contraception do you use? | c) I'm not sure, just old age o think! |
| 4. Do you take any exercise? | d) My husband uses a condom. |
| 5. Have you ever had an X-ray of your chest? | e) Yes, I worked in East Africa for two years. |
| 6. Can I ask you about your parents? | f) I'm fifty-five. |
| 7. What did your father die from? | g) When I was fifteen, I think. |
| 8. Have you ever lived in a tropical country? | h) yes, but it was a long time ago. |
| 9. Is there anything which is worrying you at the moment? | i) One or two glasses of wine each day. |
| 10. What do you do? | j) I work in a clothing factory. |
| 11. How many cigarettes do you smoke? | k) I think I only had measles. |
| 12. How much do you drink? | l) Twenty-five years. It's our silver wedding this year! |

13. When did your periods first begin?

m) They're both dead now.

14. Which childhood illnesses did you have?

n) Nothing more than the usual daily problems.

13 (A). Заповнити пропуски в реченнях відповідними прийменниками/ прислівниками з таблиці (за необхідності прийменник/ прислівник використати декілька разів).

Ahead	along	back	down	on	out	to
-------	-------	------	------	----	-----	----

1. The operation has certainly brought him **back** to health.
2. The medication will help bring _____ his blood pressure.
3. She fainted but quickly came _____.
4. You're coming _____ fine. We'll have you home in no time!
5. She couldn't remember anything of the accident but slowly it's coming _____ to her.
6. We've cut _____ the growth and the wound should heal quickly.
7. She's done something _____ her back. She's having difficulties moving.
8. We're still trying to find _____ what is causing the high temperature.
9. She has decided to go _____ with the operation.
10. Several patients have gone _____ with a stomach bug.
11. Try to keep _____ this diet for the next four weeks.
12. The baby is growing quickly and putting _____ weight.

13 (B). З'єднати словосполучення з їх значеннями

proceed	find out
adhere to	do something to
become ill with	bring back
establish	cut out
regain consciousness	come back
increase	go down with
reduce	come on
restore	keep to
cause injury	bring down
improve	come round
remember	put on
remove	go ahead (with)

14. Заповнити пропуски дієсловами з таблиці

alleviate	cure	experience	heal	immobilize	improve
paralyse	recover	rehabilitate	reject	relapse	relieve
	respond	resuscitate	revive	stabilize	

- The doctor has given her some medication to alleviate the pain.
- The operation was success and we hope her body won't _____ the new heart.
- It'll take up to six months to _____ fully from the hysterectomy.
- We're very pleased with her condition. She's _____ well to treatment.
- He's intensive care at the moment where we're trying to _____ his condition.
- At the scene of the accident the paramedics tried to _____ the casualty whose breathing had stopped.
- It took some time to _____ her after she fainted.
- Paracetamol will _____ the symptoms of the common cold but it won't _____ it.
- If you leave the wound uncovered it will _____ more quickly.
- The occupational therapist is working to _____ the patient after her serious accident.
- The plaster cast acts to _____ the arm while the bone regrows.
- Trauma to his spine has _____ his left leg.
- Now that we have isolated the pathogen and can treat her, her condition should _____ rapidly.
- He has made a good recovery but he still _____ occasional pain in his thigh.
- He was making a good recovery but this morning he _____ and we have moved him to intensive care.

15. Закінчити речення, використовуючи прикметники, подані в таблиці

My sight is blurry, _____, _____.

anxious	barking	bitter	blurry	confused	creamy
double	faint	foul	hawking	husky	light
nauseating	numb	offensive	pinkish	pounding	salty
slimy	stiff	stinky	sweet	tense	throbbing
tingling	transparent	unclear	weak	wheezing	woozy

- I feel _____, _____, _____, _____.
- My headache is _____, _____, _____, _____.
- My leg feels _____, _____, _____, _____.
- His cough sounds _____, _____, _____, _____.
- Food tastes _____, _____, _____, _____.
- The discharge smells _____, _____, _____, _____.
- The discharge is _____, _____, _____, _____.

Section II. Texts for the self-study reading

Завдання.

Прочитати тексти, подані нижче, та дати відповіді на питання

Text 1. The hospital team

In a busy general hospital there may be several thousand staff on the payroll. Although they are a team that works closely together, team members don't have equal status, but function within a complicated system of ranks and grades. The medical hierarchy is well known for its strict divisions and class structure, though things are changing - it is now much less rigid than in the past, and the authority to make decisions is being distributed more widely. Nurses' responsibilities are expanding into what was once the sole domain of doctors, and paramedics are now doing things that were once done only by nurses.

The basic hospital chain of command, however, remains unchanged. In British hospitals, for example, it is the consultant - a doctor-whose name appears on patients' notes and who carries ultimate responsibility. Next in line is the registrar, then senior house officer, and then house officer. In the UK, primary care (the first contact with the medical team) is often provided by general practitioners, who are doctors working out in the community, and by nurses called health visitors.

When it comes to recovery care and corrective treatment, other members of the team with special expertise come into the picture. These are professionals such as physiotherapists, occupational therapists, and speech therapists. Because barriers are breaking down between ancient and modern views of illness, many hospitals now encourage interaction with complementary medicine, so it is now common for acupuncturists and masseurs to have a part to play too.

Hospitals also employ dentists, pharmacists, opticians, laboratory technicians, receptionists, and administrative staff. The whole structure is kept going by the ancillary staff-the porters, cleaners, and kitchen staff who, in their turn are supported by volunteers - an important force of individuals whose contribution to the effectiveness of a hospital is often underestimated.

Word List

a staff – співробітники, штат, персонал

to be on the payroll – значитися в платіжній відомості

rigid – жорсткий, суворий

an authority – влада, повноваження, вплив

sole – винятковий, єдиний

a domain – область, сфера діяльності, влада

occupational therapist – трудотерапевт

ultimate – останній, кінцевий

complementary – додатковий

a primary care – первинне обслуговування (догляд)

a community – суспільство

a health visitor – сестра – відвідувач

a responsibility – відповідальність

a recovery – одужування, відновлювання

a masseur – масажист

Questions for self-control

1. What does the system of the medical hierarchy of a general hospital mean?
2. What is the basic hospital chain of command in British hospitals?
3. Who provides the primary care in the U.K.?
4. Why do many hospitals now encourage interaction with complementary medicine?
5. What staff members come into the picture when recovery sets in?
6. What is the contribution of the ancillary staff to the effectiveness of a hospital's functioning?

Text 2. In and around the hospital

Some hospitals specialize in a particular condition (cancer, rehabilitation, tropical diseases, etc.) or in a particular type of patient (children, the elderly, etc.) Others are training hospitals connected to universities, where patients can see highly-skilled specialists familiar with the latest scientific and technical developments. But the best-known type of hospital is the general hospital, which deals with a wide range of diseases and injuries.

A patient may have care that involves many of the departments in a general hospital, for example Accident and Emergency, Administration and Records, Radiology, Surgery, Post-operative Physiotherapy, as well as follow-ups in Outpatients or at a GP's surgery.

Big general hospitals may have up to fifty specialist departments. Department names are not consistent from hospital to hospital - the Children's Unit in one hospital might be called Paediatrics in another, for example. Common hospital department names include Casualty (accident and emergency), Coronary (heart), Dermatology (skin), Gastroenterology (stomach), Genito-urinary (sexual diseases), Gynaecology (women's health), Haematology (blood), Nephrology (renal / kidneys), Neurology (nervous system), Obstetrics (childbirth), Ophthalmology (eye disorders), Rheumatology (muscles and joints), Urology (urinary tract).

Word List

highly – skilled – високо кваліфікований

familiar with – знайомий з, компетентний в

to involve – залучати, включати в себе

follow ups – наступні спостереження

a casualty - нещасний випадок, аварія

a casualty cleaning station – розподільний пункт для хворих і поранених, евакуаційний пункт

genito-urinary – сечостатевої

rheumatology – вчення про ревматичні захворювання

a joint – суглоб

Questions for self-control

1. What does a particular condition of some hospitals mean?
2. How can you characterize training hospitals?
3. What hospitals deal with a wide range of diseases and injuries?
4. What departments can provide care for a patient in a general hospital?
5. What are the common hospital department names?

Text 3. Hospital admissions

The patient can be admitted to hospital in one of three ways:

- as an *outpatient* (to see a consultant but not needing a bed)
- as a *day patient* (needing a hospital bed for tests or minor surgery but not needing to stay overnight)
- as an *inpatient* (needing to stay in hospital)

It is relatively easy to organize beds for inpatients who come through a GP, but not so easy to predict numbers who come through A&E (the majority of total admissions). Because of the difficulty in predicting numbers, a hospital has to keep a number of empty beds available, and make estimates based on past statistics for the time of year.

It is important that accurate and clear medical records accompany patients from before admission and after discharge, and that they document all treatment, test results, and communications. Medical records are frequently referred to in law courts, and they are used for research. In many countries there are laws which govern who can have access to them. They consist of material such as:

- handwritten medical notes
- computerized files
- correspondence between health professionals
- laboratory reports
- x-ray films and scans
- photographs
- printouts from monitoring equipment.

As well as basic personal details, the form that is filled in for every patient on admission contains details of past hospitalizations and surgeries, the name of a person to contact, whether the patient has insurance, and whether there are any advance directives. These are instructions from the patient about what efforts should or should not be made to extend their life and who is to make medical decisions in the event of them being in a coma. This information is given a code number, and in many hospitals it is written on a plastic bracelet and fixed to the patient's wrist.

Word List

can be admitted to hospital – може бути госпіталізований

an outpatient department – амбулаторне відділення

a day patient department – денний стаціонар

an inpatient department – стаціонарне відділення

to estimate – оцінювати, враховувати

to make estimates – приблизно підраховувати, скласти кошторис

available – готівковий, доступний, наявний

a discharge – виписування хворого з лікарні

records – дані про кого-небудь чи що-небудь

insurance – страхування

an effort – зусилля

to extend the life – подовжити життя

Questions for self-control

1. How can the patient be admitted to a hospital?
2. Why is it important for a patient to have an accurate and clear medical records?
3. What materials do medical records consist of?
4. What information in many hospitals is given a code number and written on a plastic bracelet fixed to the patient's wrist?

Text 4. Accidents and emergencies

Every day, through the doors of A&E departments, come the victims of road traffic accidents, violent crimes, accidents at home, suicide attempts, self-harming, contact with toxic chemicals and radiation, burns, near drowning, hypothermia, and so on. A&E departments also fill up with people who should not really be there - people with minor injuries like sprains, cuts, and grazes. So when is an accident an emergency?

A&E staff normally considers an emergency to involve one or more of the following:

- loss of consciousness
- heavy blood loss
- suspected broken bones
- chest pain lasting fifteen minutes or more
- difficulty breathing
- overdose or poisoning

There are established procedures for dealing with casualties of major incidents such as terrorist attacks, large fires, and multiple road traffic accidents. One of the first things is to determine who is a priority and needs to be treated immediately, and who can wait. This is called triage. One method is to colour code patients like this:

- blue (patients who are severely injured and will die)
- red (patients who need immediate surgery or other life-saving action)
- yellow (patients who are stable but who will need hospital care)
- green (patients who will need to see a doctor, but not immediately)
- white (patients who only require first aid and home care)

Working in A&E can be very stressful, and it is not uncommon for staff to suffer trauma, nightmares, and anxiety as a result of the emergencies they deal with.

Word List

a victim – жертва, потерпілий

a violent crime – насильницький злочин

a suicide attempt – спроба самогубства

a self-harming – самоушкодження

a drowning – утоплення

a sprain – розтягнення (зв'язки), розтягнення (суглоба)

a graze – натертість шкіри

a loss of consciousness – втрата притомності

multiple – багаторазовий, багаточисельний

an accident – нещасливий випадок

a nightmare – нічний кошмар

Questions for self-control

1. What victims do daily come through the doors of A&E departments?
2. When is normally an accident considered to be an emergency by A&E staff?
3. What is called triage?
4. What colours are included into a patients' code? What do these codes mean?
5. Why can working in A&E be very stressful?

Text 5. Pain

Pain is an essential survival mechanism, for it warns us that something is wrong. Pain has an emotional component and is not the same for everyone, which makes it notoriously difficult to measure and compare. Tolerance of pain is influenced by genes, culture, conditioning, and education. Children, for example, have a greater sensitivity to pain than adults, and despite the common view to the contrary, many studies show that men have a higher pain threshold than women.

Pain is either acute or chronic. Acute pain is short-term, and chronic pain lasts longer than the injury that caused it.

The body's organs contain few pain-receiving nerve endings, so internal injuries often cause referred pain, where pain is felt in another, unrelated part of the body. This is why, for example, the pain of a heart attack is felt in the left shoulder, arm, or hand.

Assessing pain is an important part of diagnosing an illness and measuring the progress of treatment. One method is the McGill Pain Questionnaire, which consists of a list of adjectives which the patient chooses from to describe their pain. Words are not always reliable, and many nurses and doctors prefer a numerical scale (0 is no pain and 10 is the worst pain you can imagine). The Verbal Pain Scale is another method which uses vertical lines in colours ranging from light blue (no pain) to bright red (severe pain).

The fact that we instinctively deal with pain by rubbing the part that hurts suggests to scientists that stimulating touch signals closes a gate pain signals. Physiotherapy and acupuncture take advantage of this phenomenon. The gate can also be shut by the release of pain-relieving opioids, either produced naturally by the body or introduced artificially in the form of analgesics like Aspirin and Morphine. Psychological stress can temporarily shut off pain too, which is why a footballer may continue to play despite injury and a soldier continue to fight despite wounds.

Word List

a survival mechanism – механізм виживання, збереження життя

to warn – попереджати

notoriously – заздалегідь відомо

to measure – вимірювати

despite smth. – незважаючи на

a threshold – поріг

acute – гострий

a referred pain – що заподіює біль

reliable – надійний

a numerical pain scale – кількісна шкала болю

a verbal pain scale – вербальна шкала болю

to rub – терти, масажувати

a release – полегшення, звільнення, виділення, випуск

artificial – штучний

temporarily – тимчасово

an injury – забій, рана, ушкодження, шкода

a wound – рана

to compare – порівнювати

Questions for self-control

- 1.What is pain?
- 2.What is tolerance of pain influenced by?
- 3.What is the difference between acute and chronic pain?
- 4.Why is assessing pain so important?
- 5.What method is called the McGill Pain Questionnaire?
- 6.What method is called the Verbal Pain Scale?
- 7.In what ways can one close a “gate” to pain signals?

Text 6. Symptoms

Symptoms are the physical conditions that indicate an illness, and are usually described as either strong, or mild, or weak. Many illnesses have symptoms in common, such as nausea, high blood pressure, etc., whereas other symptoms are rarer and specific to a **narrow range of illnesses**. The most important symptom that leads to a diagnosis is called a **cardinal symptom**, and the symptoms that cause a patient to seek medical help are referred to as **presenting symptoms**.

Symptoms are the things that are noticed by the patient, whereas signs are the objective evidence of an illness which can be observed by doctors and others. So pain is a symptom, and a low blood cell count is a sign. Some features can therefore be both signs and symptoms.

Symptoms can be classified into the following:

- general symptoms such as loss of appetite, tiredness, pain, convulsions, and dizziness
- neurological / psychological symptoms such as anxiety, insomnia, and unsteadiness
- ocular symptoms such as blurred vision, double vision, and loss of vision in one eye
- gastrointestinal symptoms such as bloating, diarrhoea, vomiting, blood in stools, and indigestion
- cardiovascular symptoms such as chest pain and abnormal heart beat
- urological symptoms such as incontinence, difficulty urinating, passing a lot of urine, and impotence
- pulmonary symptoms such as coughing, hyperventilation, chest pain, and shortness of breath
- integumentary (skin) symptoms such as rashes, itching, blisters, and swellings

Word List

to indicate – вказувати. Показувати, означати

nausea – нудота

blood pressure – кров'яний тиск

a range – ряд, клас, ступінь, межа

cardinal symptoms – головні симптоми

to seek help – шукати допомоги

presenting symptoms – існуючі симптоми

a sign – ознака, прикмета, знак

an evidence – підстава, доказ, підґрунтя

dizziness – запаморочення

anxiety – тривога

insomnia – безсоння

blurred vision – затуманений зір

floating – здуття живота, раздутість

indigestion – розлад шлунку, нестравленість

incontinence – нетримання

urination – сечовипускання

hyperventilation – посилене дихання

integument – зовнішній покрив, шкіра

rash – висип

itching – свербіж

a blister – наливний витяжний пластир, пухир

swelling – набряк, пухлина

Questions for self-control

1. What are symptoms?
2. What symptom is called a cardinal one?
3. What are presenting symptoms?
4. What is the difference between symptoms and signs?
5. How can symptoms be classified into?

Text 7. Caring for the elderly

Anyone who is healthy, under 40, and living in a developed country now has a good chance of surviving past 100. But surveys show that many people think that old age means only boredom and mental and physical decay, and do not see any advantage in this.

The medical problems associated with old age are classified by gerontologists under the four is (also known as 'The giants of Geriatrics'):

- intellectual impairment / confusion
- immobility
- instability
- incontinence

These problems are seriously disabling, and elderly people are often highly dependent on nursing care. Many are bedridden, and though neurodegenerative diseases are the main areas of research, depression, sleep disorders, problems with eating, and skin breakdown are also issues for the elderly and for the people who take care of them. Physical and emotional abuse by relatives and care staff is also now receiving attention from health authorities and the police in a number of countries.

Studies show that chronic impairments in elderly people, such as deafness and muscle weakness, are frequently mistaken for failing mental abilities. Thus, an elderly woman admitted to A&E after a fall may be referred to a social worker to judge if she is able to take care of herself, whereas, if she were 40 years younger, there would be a full medical investigation.

Gerontologists argue that it is possible to grow old and die without losing faculties to dementia. But while many believe that 'old' is just a state of mind, in reality factors such as the loss of a lifetime partner, and a sense of uselessness and social isolation after retirement, tend to make the elderly more prone to apathy and depression, which increases vulnerability to disease.

Elderly people can be very demanding to nurse. They can often be inattentive, with disorganized thought and speech, and disturbed behaviour. But geriatric nursing has rewards too. Unlike most other nursing specialisms, the fact that elderly people are in long-term care means that nurses do get opportunities to build meaningful relationships with their patients.

Word List

to survive – вижити, продовжити існування

a survey – огляд, обстеження, звіт про обстеження

boredom – нудьга. туга

decay – занепад, руйнування, згасання

an advantage – перевага

an impairment / confusion – погіршення, ушкодження. розлад

immobility – нерухомість

instability – нестійкість

incontinence – нетримання

to be bedridden – бути прикутим до ліжка хворобою

a disorder – порушення, ушкодження, розлад

a breakdown – повний занепад сил, здоров'я

an abuse – зловживання; образа; погане ставлення

deafness – глухота

useless – марність, непридатність до чого-небудь

a retirement – піти з роботи; вихід на пенсію

prone to – схильний до ...

vulnerability – вразливість

a reward – нагорода. подяка

meaningful – значний

Questions for self-control

- 1.How are medical problems associated with old age classified by gerontologists?
- 2.Why do elderly people often become highly dependent on nursing care?
- 3.What chronic impairments in elderly people are frequently mistaken for failing mental abilities?
- 4.What factors tend to make the elderly more prone to apathy and depression?
- 5.What rewards does geriatric nursing have?

Text 8. Nutrition and obesity

The body gets nutrients and energy from food. What is known as a balanced diet provides for optimal growth and development, whereas an unbalanced diet causes problems with the maintenance of body tissues, the brain and nervous system, and bones and muscles. Eating a balanced diet means eating foods from all of the four basic food groups: the milk group, the meat (and meat substitute) group, the fruit and vegetable group, and the grain group.

One result of an unbalanced diet combined with inactivity is obesity - a condition in which excess fat has accumulated in the body. When a person's weight is 20% over the normal bodyweight for height and age, they are considered obese.

Excessive amounts of fat in the body tissue are associated with the following health problems:

- stroke
- high blood pressure
- high cholesterol
- respiratory problems
- type II diabetes
- heart disease
- osteoarthritis
- gall bladder disease

There are a variety of treatments for obesity, ranging from diet and behaviour therapy to drugs and surgery. Obesity is not the only eating-related disorder. Others include:

- anorexia nervosa-when individuals starve themselves in order to lose weight, when in fact they are already grossly underweight

«bulimia nervosa-eating large amounts of food in one sitting (binge eating) and then vomiting (purging), plus the use of laxatives, diuretics, and vigorous exercise

- pica - a condition particularly prevalent in children in which they eat things like dirt, wood, hair, and glass

All of these have severe consequences to a person's health and can even cause death. Today, medicine recognizes obesity as a chronic disease, and patients with eating disorders are seen as victims whose suffering is not self-inflicted but the result of an illness. Many people with an eating disorder attempt to hide their abnormal behaviour, do not accept the diagnosis, and will refuse treatment.

Word List

a nutrient – поживні речовини

to provide for – вжити заходів

to cause problems – викликати, бути причиною проблем

a maintenance – підтримка

grains – хлібні злаки

obesity – огрядність, ожиріння

to accumulate – нагромаджувати

obese – огрядний, який страждає на ожиріння

a stroke – удар, напад

a gall bladder – жовчний міхур

a variety of – різновид

to starve – вмирати від голоду; морити голодом

bulimia – підвищене почуття голоду, ненормально підвищений апетит

a laxative – проносний засіб

a diuretic – сечогінний засіб

prica – ненормальний/збочений апетит

consequence – наслідок

a victim – жертва

to inflict – завдавати болю

Questions for self-control

1. What are the advantages of a balanced diet?
2. What are the faults of an unbalanced diet?
3. How can obesity be characterized?
4. What problems are associated with excessive amounts of fat in the body?
5. Why does today's medicine recognize obesity as a chronic disease?

Text 9. Blood

Medical terms related to blood often begin with the prefix *haem-*, which comes from the Greek word for blood. Therefore, the study of blood is haematology, haemophilia is a disease of the blood, and haemophobia is an abnormal fear of blood. New blood is being constantly made by the bone marrow in a process called haemogenesis, bleeding is technically known as a haemorrhage, and a bruise is a haematoma.

Travelling through the haemal system of arteries, veins, and capillaries, blood distributes oxygen from the lungs, takes carbon dioxide back to the lungs, keeps the body warm, removes waste, and transports nourishment, vitamins, antibodies, and hormones. 55% of human blood is fluid plasma, a clear liquid that carries:

- red blood cells (erythrocytes) which carry oxygen within haemoglobin, and give blood its red color
- white blood cells (leukocytes) that protect against disease
- platelets (thrombocytes) which help blood clot and seal wounds

The body can replace blood when it is lost in small quantities, but when someone loses a lot of blood through a major wound, it can only be replaced quickly through a blood transfusion. There are different blood types, and transfusion of the wrong one can be fatal, so patients and blood are cross-matched before a transfusion. There is no such thing as artificial blood, but because it is the loss of volume that kills when there is severe blood loss, laboratory-made substitutes can often be used in emergencies.

A blood test is an extremely useful source of information about the health of a body. Because blood is affected by many medical conditions, the shape, size, behaviour, and numbers of blood cells reveal a lot, so blood tests are used to form diagnoses, and to monitor illness and the effectiveness of treatment. A blood test is fast, safe, and fairly reliable. Some tests can be done with only a drop of blood, whereas others may need a lot more. Blood tests give information about such things as blood chemistry, kidney and liver function, hormone, cholesterol and glucose levels, and numbers of antibodies.

Word List

fear – страх, побоювання

bone marrow – кістковий мозок

bleeding – кровотеча

haemorrhage – кровотеча

a bruise – синець

to distribute – поширювати, розподіляти, розміщувати

to remove wastes – видаляти / виводити відходи

to transport – переносити, пересувати

a clear liquid – прозора рідина

to protect – захищати

to clot – згортатися, зсідатися (про кров)

to seal – ізолювати, закупорювати, запаювати

transfusion – переливання, внутрішньовенне вливання

Questions for self-control

1. What is the difference between the terms “haematology”, “haemophilia”, “haemophobia”, “haemogenesis” and “haemorrhage”?
2. What is the traditional route of blood in a human’s body?
3. What does fluid plasma carry?
4. In what way can large losses of blood be quickly replaced?
5. Why are patients and blood cross-matched before a transfusion?
6. What information can be obtained through blood tests?

Text 10. Death and dying

Palliative care or hospice care, which supports dying people and their relatives but does not try to cure, is a relatively new development in medicine. In the past, to concentrate not on curing but on making a terminally ill patient comfortable was seen as 'giving up'. Now the approach is to accept the dying process, and to focus on supporting patient and family to cope with the realities of a terminal condition from diagnosis through treatment, death, and bereavement.

An important aspect of palliative care is the alleviation of pain, and practitioners who work in this field have developed ways of using drugs such as Morphine to relieve pain while at the same time maintaining a patient's full faculties. Palliative care also makes use of alternative treatments that can help with pain management, such as relaxation therapy, massage, and music therapy.

The reality of long, debilitating terminal illnesses raises the issue of euthanasia, and the questions are always being asked: Is it a moral act to help a suffering person end their life, or is it immoral? Should some form of euthanasia be permitted, or should it be regarded as murder?

The moment of death has always been difficult to define because there are so many accounts of people 'dying' and then coming back to life. One definition of death is when heart and breathing stop, but some medical training manuals state that a person cannot be assumed to be dead unless it is perfectly obvious - for example, in the case of decapitation, or the onset of rigor mortis (the hardening of muscles). This means that emergency paramedics for example, must continue all attempts to resuscitate until death on arrival is confirmed by a hospital doctor.

When a patient dies in hospital, nursing staff provide post-mortem care. This is a set procedure which includes making records and preparing the body for relatives. Postmortem care varies according to culture and religion, and whether or not there is going to be an autopsy to get more information about the cause of death.

Word List

a palliative treatment – паліативне (пом'якшене) лікування

a hospice - притулок

to support – підтримувати

to cure – лікувати, відновлювати здоров'я

to accept - приймати. допускати

to cope with – споратися з

alleviation – полегшення

to relieve pain – полегшити біль

a faculty – здатність

to debilitate – послаблювати

terminal – кінцевий

euthanasia – легка безболісна смерть

to permit – дозволяти

a murder – вбивство

decapitation – обезглавлення, декапітація

an onset – початок, напад

rigor – непорушність

to resuscitate – оживляти, оживати

a postmortem care – посмертні послуги

autopsy – розтин трупа

Questions for self-control

- 1.What does palliative care or hospice care mean?
- 2.What is an important aspect of palliative care?
- 3.What are the ways and means in hospice care that can help with pain management?
- 4.When can a person be assumed to be dead?
- 5.Who provides post-mortem care when a patient dies in a hospital?
- 6.What services are included into a post-mortem care?

Text 11. Mental health nursing

Unlike other diseases, there is no objective way to make a diagnosis of mental illness, and very often a diagnosis is based on observations of behavior and scores in psychological tests. The dividing lines between madness, eccentricity, and normality are in fact rarely clear, though strange behavior and impulses are usually associated with mental illness if suffering is involved.

'Mental illness' is a broad label for illnesses that include:

- emotional instability
- behavioural disorders
- cognitive dysfunction

There are almost 400 recognized and named mental disorders, including common ones such as depression, schizophrenia, hyperactivity, Tourette syndrome and obsessive compulsive disorder. The origins of mental disorders can be biological (chemical or genetic) or psychological (trauma and conflict). The disorders themselves vary widely in kind and degree from individual to individual, and a disorder can be episodic with 'flare-ups' and periods of remission.

Nurses work with the mentally ill in making assessments and diagnoses, planning care, and helping patients regain or improve the skills they need to cope. Important in their work is the therapeutic relationship. This is the relationship between patient and therapist, which is based on non-judgmental empathy, and which provides the security to be able to speak with honesty. Therapeutic relationships develop under the most difficult conditions, not just because of the nature of a patient's mental illness, but also because the patient is often being given treatment against their will.

Medicine is rarely successful at curing mental illness completely, but it can treat it with varying degrees of success. Options include: medication, psychotherapy, and lifestyle adjustments. Certain treatments, such as electroshock and lobotomy, are controversial, and treatments used in the past, such as cold water, restraint, and isolation, are now viewed as barbaric and cruel.

Word List

behavior – поведінка

a score – бал

madness – душевний розлад, божевілля

to suffer – страждати, хворіти, потерпати

recognized – визнаний, встановлений

obsessive – нав'язливий

compulsive – примусовий, нав'язливий

a flare-up – спалах

to regain – повернути собі; відновити

relationship – зв'язок, стосунки

empathy – співчуття

will – воля, бажання

an option – вибір

a medication – медикаментозне лікування

an adjustment – регулювання, пристосування

lobotomy – видалення частки легені

restraint – обмеження рухів, стримування

barbaric – варварство

cruel – жорстокий, безжалісний

Questions for self-control

1. How can a diagnosis of mental illness be made?
2. What disorders are supposed to be included into the term “mental illness”?
3. What and how many mental disorders are recognized as mental ones?
4. What do the therapeutic relationships mean? Why are they important in the work with mentally ill people?
5. What options can be included in the chain of curing mental illnesses?

Text 12. Monitoring the patient

To make a diagnosis and get an objective assessment of how well or how badly a patient is responding to treatment, medical practitioners have a range of tests to make measurements. The best known are readings of the four standard vital signs - temperature, heart rate (pulse), blood pressure, and respiratory rate. The only equipment needed to take these is a thermometer, a blood pressure cuff, and a watch. Vital signs have their limitations in detecting important changes in the body, and stable vital signs do not necessarily mean that life is not in danger.

Tests are generally one of six types:

- Monitoring of body functions, which includes the vital signs and bowel and bladder habits, growth, movement, responsiveness, and the electrical activity of the heart and brain.
- Analysis of body fluids such as blood, urine, and spinal and brain fluid.
- Imaging, which generally involves getting pictures of what is going on inside the body. The most common are x-rays, but others include ultrasound, radioisotope scans, computed tomography (CT) scans, magnetic resonance imaging (MRI), and positron emission tomography (PET) scans.
- Endoscopy, which is the use of a flexible viewing tube (endoscope) to look inside the body. An endoscope has a light and a camera, and sometimes a tool to cut and remove tissue.

Biopsy, which is the removal of tissue samples for examination. Tissues that are commonly examined include skin, breast, lung, liver, kidney, and bone. Analysis of genetic material in cells from skin, blood, and bone marrow to look for abnormalities of chromosomes and genes. Foetuses may undergo genetic testing to determine whether they have a genetic disorder. With rising costs, staff shortages, and an ageing population with its associated higher rates of cardiac disease, telemedicine alternatives to hospital admission are becoming more and more attractive for hospitals and clinics. Using devices operating with mobile telephone technology, nurses and doctors can monitor patients from a distance. Remote monitoring has its limitations too. After all, it's not getting the information that saves lives - it's what you do with it that counts.

Word List

responding to – той, що відповідає / реагує на...

a cuff – манжета, обшлаг

danger – небезпека

a bowel – кишка, кишківник

a habit – звичка, звичай

responsiveness – чуйність, реакція

removal – видалення, усунення

a sample – зразок

a foetus / a fetus – утробний плід, зародок

costs – витрати

staff shortage – скорочення штату

to monitor – спостерігати, коригувати

a remote monitoring – управління, коригування на відстані

Questions for self-control

1. What are the readings of the four standard vital signs?
2. When do they help?
3. What kinds of equipment are needed to obtain these readings?
4. What types of tests do you know? Can you describe each one?
5. What tissue samples are commonly taken for examination?
6. Why are telemedicine alternatives to hospital admission becoming more and more attractive for hospitals and clinics?

Text 13. Medication

Early in human history, our ancestors discovered that certain plants could **ease pain and cure illness**. Prayer and magic came into it too, and symbolic actions such as drinking the blood of a warrior to take his strength, and using leaves and roots as medicine for body parts they somehow resembled, were logical extensions of the beliefs of the time.

The first pharmacopoeia (list of medicinal plants) was produced in 3.500BC by the Chinese emperor Shen Nung, and **herbal remedies** remained the basis for medicines for centuries. In the eighteenth and nineteenth centuries they were supplemented by frightening preparations of poisonous substances such as mercury, arsenic, and phosphorous, and used alongside leeches, bleeding, and laxatives. This period was many inventions and discoveries away from the white coats, stethoscopes, and the smell of disinfectant that characterize medical care today. However, the developments that went on did **give rise to a new understanding** of the chemistry and biology of the natural world, and eventually generated medicines that could be said to have changed the way people live: analgesics like Aspirin, anaesthetics, vaccinations, Penicillin and antibiotics, contraceptives, and Viagra.

Scientists who design and produce new drugs assume that a drug's effects are directly related to its molecular structure, and either synthesize medicines by reproducing the **medicinally active parts** of plants, or extract the medicinally active parts of plants and use them. Medicines are classified by:

- their chemical properties. The opioids are a well-known example of a chemical group of medicines, as are benzodiazepines and barbiturates.
- their **mode of administration**. Medications can be taken in a variety of different ways - orally, for example, in the form of pills, capsules, and liquid, through the skin via patches, by subcutaneous (under the skin) injection, or by intravenous (into a vein) injection.

the biological system affected. For example, there are laxatives and antacids for the digestive system, and beta blockers and anticoagulants for the cardiovascular system.

Medicines are either **over the counter** (bought from pharmacies), or prescription only (prescribed by a doctor), and they often have two names - a generic name and a brand name. 'Paracetamol', for example, is a generic name, but it is sold by different companies under different brand names (Panadol, Calpol, Anadin, etc).

Word List

an ancestor – предок, пращур

to ease pain – полегшити біль

a prayer – молитва

a warrior – воїн

to resemble – бути схожим на ...

an extension – розширення; розповсюдження; продовження

mercury – ртуть, ртутний

arsenic – миш'як, миш'яковий

a leech – п'явка

laxative – проносний засіб

to assume – брати на себе; допускати; пропонувати

a mode of administration – способи вживання

a patch – пляма, клопоть, шматок

a generic name – видова назва

over the counter – з прилавка, у відділі – безрецептурний (препарат)

Questions for self-control

1. What methods and procedures were used in the past to ease pain and cure illnesses?
2. Who produced the first list of medicinal plants?
3. What medical discoveries and inventions of the XVIII and XIX centuries gave rise to a new understanding of the chemistry and biology of natural world?
4. How are medicines classified by?
5. What are the ways of taking medications?

Text 14. Alternative treatments

Professor of the Public Understanding of Science at Oxford, Richard Dawkins is a critic of **alternative** and **complementary medicine**. He defines it as 'a set of practices that cannot be tested, refuse to be tested, or consistently fail tests'. His argument is that wild claims are made of alternative treatments, which are not supported by systematic research, and that alternative practitioners are unqualified, unaccountable, and sometimes dangerously **interfere with 'proper' treatment**. Though the critics may well be right, there is, nonetheless, a growing disillusionment in developed countries with **conventional medicine**, itself far from a perfect science. People turn to esoteric alternatives like acupuncture, homeopathy, and faith healing because when you are ill, in pain, and afraid of dying, you do not care about a scientific explanation if magic works. Surveys show that about half the population of developed countries use alternative treatments such as yoga, meditation, herbal compounds, and the Atkins diet. If you **include prayer** as an alternative therapy, the figure is 62%.

There are hundreds of alternative treatments, many of which derive from traditional Chinese medicine and hold basic concepts in common. Central is the idea of strengthening qi (pronounced /tʃi:/) - the life force - by manipulating the **flow of yin and yang forces**. These concepts are not 'alternatives', but part of orthodox systems of belief in some communities. However, they are not mainstream in the West, and do not translate easily into English and other European languages.

Alternative healers have some success with chronic illnesses such as back pain, which conventional medicine can often do nothing to help. There is **plenty of evidence** that acupuncture relieves pain and nausea, and may work well for musculoskeletal conditions. Herbal medicine can also work for a wide range of illnesses, and chiropractic can **ease back pain**. Where these treatments have been integrated into conventional health care, they are no longer alternative, but complementary. Homeopathy still raises many doubts because there is no viable explanation why a solution of medicine, so weak as to be effectively non-existent, could possibly work. Recent studies suggest that homeopathy's successes can be attributed to the **placebo effect**, where the patient's condition improves simply because they believe they are taking medication, even when in fact they are not. The key to alternative healing may be the degree of personal attention, interest and time, which healers give their clients, and this may be what conventional medicine is missing. The growing popularity of alternative medicine is therefore a reminder to everyone involved in healing the sick of the importance and the **healing power of empathy and care**.

Word List

complementary medicine – альтернативна (нетрадиційна) медицина

to interfere with – стикатися з ...

conventional medicine – звичайна медицина

a flow of yin and yang forces - потік сил інь та янь

an evidence – свідчення, доказ

empathy – співчуття

Questions for self-control

1. Why is Professor of the Public Understanding of Science at Oxford critical of alternative and complementary medicine?
2. Why do people in developed countries with conventional medicine turn to esoteric alternatives?
3. What is the central idea of alternative treatments, many of which derive from traditional Chinese medicine?
4. What illnesses are successfully treated by alternative healers?
5. In what way does acupuncture work?
6. How can herbal medicine work in healing illnesses?
7. What may be the key to alternative healing?

Section III. Additional material for the summary writing

Науковий стиль мовлення

Організація інформативного читання літератури за спеціальністю

Робота з науковою літературою є одним з основних підготовчих етапів у дослідницькій роботі. Вивчення літератури має на меті проінформувати дослідника про те, в якому стані в сучасній науці знаходиться досліджувана проблема, що зроблено іншими авторами в цьому напрямку, а що ще не досить вивчено, або взагалі не розглядалося.

Велике значення в дослідницькій роботі має знання іноземних мов. Якщо дослідник досить вільно читає фахову літературу іноземною мовою, включаючи інформацію, розміщену в Інтернеті, то він завжди може знайти там чимало корисної інформації, яка стане серйозною допомогою в його роботі. Починаючи читання професійної літератури іноземною мовою, слід знати, що залежно від мети, розрізняють оглядове, ознайомлювальне, вивчаюче та пошукове читання.

Оглядове читання

Метою оглядового читання є отримання загального уявлення про тему і коло питань, які розглядаються в тексті. Таке читання має місце при первинному ознайомленні зі змістом публікації, спрямоване на визначення, чи є в ній інформація, яка цікавить читача, і на цій основі прийняти рішення - читати її чи ні. Цим видом читання ми користуємося тоді, коли нам необхідно переглянути книгу, журнал, статтю тощо. Швидкість переглядового читання повинна бути не нижча, ніж 500 слів за хвилину.

Ознайомлювальне читання

Цей вид читання ми використовуємо, якщо нам потрібно швидко прочитати текст для загального ознайомлення зі змістом. Під час ознайомлювального читання предметом уваги читача стає весь твір (книга, стаття, розповідь тощо). На відміну від оглядового читання, дає відповідь на питання не тільки про що цей текст в цілому, але і що саме йдеться в ньому з того чи іншого питання. Це читання "для себе", без попередньої спеціальної настанови на подальше використання або відтворення отриманої інформації. Ознайомлювальне читання часто використовується під час роботи зі спеціальною літературою. Швидкість ознайомлювального читання становить близько 180 слів за хвилину.

Вивчаюче читання

Вивчаюче (або поглиблене) читання передбачає максимально повне і точне розуміння всієї інформації, що міститься в тексті, а також критичне її осмислення. Іншими словами, вивчаюче читання передбачає розуміння всіх фактів і деталей, встановлення взаємозв'язків між подіями, порівняння інформації. Поглиблене читання ми використовуємо тоді, коли нам необхідно зрозуміти текст до найдрібніших подробиць. Часто отриману інформацію згодом нам доведеться відтворювати або використовувати в тій чи іншій формі. Під час вивчаючого читання ми знаємо, що зміст потрібно осмислити і запам'ятати на тривалий час. Так ми читаємо все, що нам дуже потрібно для нашої подальшої діяльності: важливі інструкції, розділи підручника, матеріали контрольних робіт та іспитів тощо. Швидкість вивчаючого читання становить 50 - 60 слів за хвилину.

Пошукове читання

Пошукове читання орієнтоване на читання газет і літератури за фахом. Його мета – швидке знаходження в тексті певних даних (фактів, характеристик, цифрових показників тощо). Роботу над новим матеріалом (текстом) рекомендується починати з загального ознайомлення з його змістом, тобто ознайомлювального читання. Перевірка розуміння здійснюється виконанням відповідного завдання (як правило, це перше завдання до кожного тексту). Для більш точного і глибокого розуміння інформації, що міститься в тексті, необхідно опрацювати нові слова і словосполучення, звертаючись у разі необхідності до двомовних словників. З цією метою слід виконати друге, а іноді й третє завдання до тексту. Після цього може мати місце вивчаюче або пошукове читання. Перевірка розуміння інформації здійснюється шляхом виконання завдань на визначення правильних і неправильних тверджень, відповідей на питання тощо. Доцільно також законспектувати або скласти план прочитаного, виписати ключові слова. На завершальній стадії доцільно відтворити отриману інформацію в письмовій формі (у вигляді анотації), вживаючи виписані ключові слова.

З чого необхідно починати роботу над літературою?

Не треба передчасно лякатися, якщо раптом виявиться, що з цієї теми існує дуже багато літератури. При правильній методиці ознайомлення з джерелами, можна швидко навчитися вільно орієнтуватися в літературі на обрану тему.

Перш за все, потрібно скласти попередній список. Почати вивчення літератури можна з перегляду журналів останніх років, які стосуються спеціальності дослідника. Знайшовши статтю, яка стосується його теми, читач повинен подивитися список літератури в її кінці – щоб дізнатися, які ще існують публікації по цій темі – і потім може приступити до їх вивчення. Треба переглянути всі види джерел, пов'язаних з темою дослідження. До них можуть належати іншомовні матеріали, опубліковані в зарубіжній періодиці, монографії, звіти про науково-дослідну роботу, дисертації, матеріали зарубіжних фірм. У процесі пошуку матеріалів слід використовувати можливості інформаційно-пошукових систем Інтернету, баз і банків даних. Отримана таким чином інформація може виявитися корисною як сама по собі, так і послужити відправною точкою для пошуку додаткової інформації.

Як треба працювати із зібраними матеріалами?

Дуже корисним прийомом роботи з літературними джерелами є складання картотеки наукових робіт по темі. На кожне літературне джерело необхідно завести облікову картку, аналогічну бібліотечній, в яку треба виписати повну бібліографічну інформацію про роботу, а на зворотному боці – коротку анотацію. Важливо відразу ж правильно заповнювати картки, щоб у подальшому не довелося повторно брати книгу для уточнення, наприклад, кількості сторінок в ній. Грамотно складена картотека навіть при побіжному огляді заголовків дозволяє охопити проблему в цілому. Потрібно також мати робочий зошит, куди будуть заноситися всі тези, цитати, конспекти, посилання. Крім того, для обліку обробки певного обсягу англійської літератури необхідно підготувати зошит-словник. Кожна прочитана стаття (розділ монографії) оформлюється в зошиті-словнику за такою формою:

- 1) повні вихідні дані;
- 2) словник статті;
- 3) короткий виклад змісту статті.

Складання літературного огляду

Складання літературного огляду прочитаної літератури - невід'ємний компонент будь-якої науково-дослідної роботи. Під час написання літературного огляду необхідно пам'ятати про наступне.

Не можна механічно переписувати фрази з чужого тексту. Таке переписування називається плагіатом (літературним або науковим злодійством) і може навіть каратися відповідно до законів про авторські права.

Літературні відомості повинні бути викладені власними словами. Заняття це досить важке. Автор повинен порівняти, зіставити різні точки зору на предмет дослідження, відзначити їх слабкі і сильні сторони. Якщо необхідно навести дослівно цитату якогось автора, текст береться в лапки і вказується джерело (книга, журнал тощо) із зазначенням видавництва, року, тому, номера журналу, сторінки, щоб будь-який читач міг перевірити його правильність та достовірність. Якщо цитування відбувається не з першоджерела, треба написати «цитуються за ...».

Список літератури містить перерахування всіх згаданих в тексті статей і книг. Статті та книги в списку розташовуються зазвичай в алфавітному порядку за прізвищами авторів. Як правило, застосовується такий порядок запису: прізвище, ініціали, назва книги, місце видання (місто), назва видавництва, рік. Якщо мова йде про статтю, порядок наступний: прізвище, ініціали; назва статті, журнал, номер, рік, сторінки.

Щоб уникнути конфузу, у список слід включати тільки ті роботи, які автор прочитав сам. Джерела, зазначені в бібліографічному списку, повинні бути доступні для перевірки достовірності даних. Не можна забувати і про належне оформлення роботи - її найкраще набрати на комп'ютері і роздрукувати на принтері.

Мовленнєві особливості наукового мовлення

Оскільки завдання наукової мови полягає в адекватній передачі наукової інформації, специфічними рисами наукового мовлення визнаються узагальненість і логічність викладу інформації.

Зазначені характеристики наукової мови знаходять відображення в спеціальних мовних засобах. Головним засобом узагальненості викладу інформації є деагентивність останнього, тобто використання пасивних конструкцій (*This phenomenon was thoroughly studied in the middle of the 20th century*), безособових речень (*It has become the central task of the maine Research centre to control the total amount of researches on the themes*), узагальнено-особових речень (*We know that ...; Everybody knows that ...*), а також речень з конструкцією "there (be)". (*There are two distinct reasons for identifying origin of a disease*).

Другою основною ознакою узагальненості викладу інформації є так звана поліпропозитивність простого речення, а саме, здатність останньої висловлювати не один, а кілька елементарних смислів. Досягається це використанням іменників, які співвідносяться з дієслівними предикатами, що ніби посідають їхнє місце (*rise* - від *to rise*, *reduction* - від *to reduce*, *adjustment* - від *to adjust*, *transformation* - від *to transform*, etc.). У цій функції вживаються також іменники, утворені від прикметників (*importance, significance, possibility, necessity, etc*), які відповідають предикатним конструкціями з предикатом-прикметником ("*is important*", "*is necessary*", etc.), а також Past Participle у функції означення (*revealed data, established correlation, examined phenomenon*).

Наприклад, у реченні "*The revealed correlation between these two factors is indicative of the necessity to take into account the rate of metabolism reduction*" закладено чотири елементарні смисли (чотири речення): (1) виявлено зв'язок між певними двома факторами; (2) швидкість обміну речовин в організмі знизилася; (3)

необхідно взяти до уваги факт зниження швидкості обміну речовин; (4) третє речення є наслідком першого (це речення розкривається за допомогою присудка *"is indicative of"* – "свідчити про").

Проліпропозитивну ускладненість речення створюють також різні обставинні словосполучення, наприклад: *"because of"* (через), *"due to"* (в результаті), *"in contrast to"* (на відміну від), *"in comparison with"* (у порівнянні з), *"by means of"* (за допомогою), *"alongside with"* (разом з), *"with the exception of"* (за винятком), *"in spite of"* (незважаючи на), *"in order to"* (для того щоб), *"in case of"* (на випадок; в разі ...) та інші.

Друга важлива риса наукової мови – **логічність** викладу інформації - пов'язана з такою фундаментальною властивістю наукового тексту, як послідовність.

Послідовність тексту проявляється в трьох аспектах – змістовому, логічному і композиційному. Розглянемо особливості кожного з них.

Змістова послідовність має місце у випадках, коли частина змісту попереднього речення відтворюється в наступному реченні. При цьому зміст частини, що повторюється, може передаватися в більш узагальненій формі, за допомогою займенників. Але вживання займенників має обмежений характер, оскільки бувають випадки, коли їх форма може бути співвіднесена з більш, ніж одним компонентом у попередньому реченні:

"The Restrictive Practices Court examines agreements between firms supplying medical equipment and services in the UK. These agreements must be notified to the Director-General of Fair Trading".

У наведеному прикладі використання лексичного повтору *"these agreements"* є виправданим, оскільки вживання займенника *"they"* замість слова *"agreements"* створило б можливість співвіднесення його з іншими компонентами у попередньому реченні (*firms, medical equipment, services*).

У науковій мові широко використовується вживання слів *"phenomenon"* (явище), *"process"* (процес), *"feature"* (особливість), *"factor"* (фактор), *"concept"* (поняття), *"property"* (властивість) і подібні. У них узагальнюється, конденсується зміст частини попереднього речення.

Логічна послідовність тексту забезпечується використанням сполучників, вступних слів типу *hence* (отже), *thus* (таким чином), *so* (отже; назад), *but* (але), *however* (проте, однак), *nevertheless* (проте), *at the same time* (у той же час), *conversely* (навпаки), *moreover* (крім того, до того ж), *simultaneously* (одночасно), *on the other hand* (з іншого боку).

Особливої уваги потребує виклад висновку, коли зв'язок між причиною і наслідком встановлюється логічним шляхом. У цьому випадку використовуються такі дієслова, як *"testify"* (свідчити), *"show"* (показувати), *"prove"* (доводити), *"confirm"* (підтвердити), *"follow"* (логічно виходити), *"mean"* (означатиме); *"(Be) indicative of"* (свідчити), *"witness"* (свідчити; бути доказом).

Композиційна послідовність забезпечує розкриття ходу думок автора, акцентування на найбільш важливих частинах матеріалу.

Для концентрації уваги на певному об'єкті використовуються наступні мовні засоби: *"Let's examine / think about"* (Давайте подивимося / подумаємо про); *"Let's discuss"* (Давайте обговоримо); *"Let's proceed to"* (Давайте перейдемо до); *"Next"* (Далі; потім).

Показниками логічного виділення думок виступають предикативні одиниці зі значенням обставини:

"It should be noted / emphasized / underlined" (Варто відмітити / підкреслити); *"It is important / necessary to note"* (Важливо / необхідно відмітити).

Приймаються також показники на зв'язок з попереднім змістом сказаного: "*We have already mentioned*" (Ми вже згадували); "*It was mentioned above*" (Вище вже згадувалося).

Поширеним в науковій мові є також використання показників оцінки інформації з точки зору її достовірності: "*As we know*" (Як ми знаємо), "*Everybody knows*" (Відомо), "*It is incorrect to say / think*" (Неправильно говорити / думати). Оцінка інформації як такої, зазвичай, може виражатися словами "*perhaps*" (можливо), "*probably*" (ймовірно), "*It can be suggested*" (Можна припустити).

Серед інших вимог до наукової мови слід зазначити, по-перше, точність викладу матеріалу, яка забезпечується правильним структуруванням речень, використанням лексичних повторів, вживанням однозначних слів (у тому числі термінів). По-друге, сучасній науковій мові притаманний короткий виклад інформації, чому сприяє поліпропозитивність простих речень, вилучення загальновідомих фактів, використання мовних кліше, аббревіатур, особливо в скорочених жанрах наукової літератури (анотаціях тощо).

Так, з метою економії рекомендується вживати *because* замість *based on the fact that; for* або *to* замість *for the purpose of*. Для більшої точності слід сказати *customer* або *client* замість *subject; concentration* або *frequency* замість *level*.

Не рекомендується вживати без потреби узагальнювальні слова. Наприклад, не можна вживати *some*, якщо вказано лише на один випадок. Зазвичай, слід уникати таких підсилювальних слів, як *very* і *extremely*.

Абревіатуру доцільно використовувати тоді, якщо вираз дуже довгий або якщо дане скорочення відоме всім дослідникам у цій сфері. Якщо необхідно прийняти авторську абревіатуру, спочатку слід позначити її в дужках, наприклад: *hyperbaric oxygenation therapy (HOP)*.

Загальновідомі латинські абревіатури вживаються лише в дужках: *that is (i.e.), for example (e.g.), and so on (etc.)*, тоді як *vs (versus)* і *et al. (And others)* можна вживати в дужках і без них. Такі скорочення, як *SD (standard deviation) 95% CI (95% confidence interval), 95% CL (95% confidence limits)*, приймаються без їх визначення в анотації роботи, але вимагають пояснення в самій роботі.

Між літерами слова-скорочення крапки не ставляться: *AIDS (acquired immune deficiency syndrome)*. Ні крапки, ні пробіли не вживаються в скорочених назвах країн: *US (the United States), UK (the United Kingdom)*.

Крапка ставиться, якщо остання літера скороченого слова не є останньою літерою всього слова: *Prof., Vol. 1, p. 23-25, 2nd ed., Et al., Etc. Але: Dr, Mr, Ms* тощо.

Для одиниць виміру вживаються такі міжнародні скорочення: *m (meter)*

ms (millisecond)

g (gram)

s (second)

kg (kilogram)

min. (minute; minimum)

mol (mole)

h (hour)

l (left; length; litre; line: використовується для посилання на певний рядок на сторінці)

d (day)

ml (milliliter)

wk (week)

Закінчення множини "s" з цими абрєвіатурами не вживається.

Зрозуміло, що короткий виклад матеріалу не повинен порушувати точність передачі інформації.

Інші поради щодо наукового стилю мовлення

Важливо, щоб думки автора були правильно сформульовані, а речення правильно сконструйовані, при цьому їх структура була досить простою. Треба пам'ятати, що іноді причиною неправильного розуміння думки автора можуть бути неточності в побудові висловлювання. Так, при порівнянні (*more than, less than, similar to*) потрібно вказувати, з чим саме здійснюється порівняння, для чого можна використовувати словосполучення *that of (those of): more (less) than that of (those of), similar to that of (those of)* – або *than with* или *than by*. Наприклад: “*The measure was **more valid than that of** Smith et al.*” “*The method was **similar to that of** an earlier study.*” “*We experienced fewer problems with the revised instrument **than with** the published version.*”

Не слід вживати довгий ланцюжок означень перед іменником: краще сказати “*a modified test of cognitive function*”, ніж “*a modified cognitive-function test*”.

Не рекомендується вживати *however* або його синоніми двічі в одному абзаці. В інших абзацах можна використовувати (за необхідності) синоніми цього слова (*yet, still, nevertheless, nonetheless*).

Усі слова треба вживати тільки відповідно до їх точних значень, зрозумілих для звичайної людини. Наприклад, не можна плутати *affect* (дієслово) і *effect* (іменник і дієслово): *Temperature **affected** the outcome. There was an **effect** on outcome. The new regime **effected** (=produced) substantial changes.*

Обираючи між *owing to* и *due to*, варто пам'ятати, що *owing to* завжди виділяється комою, а *due to* – ні: *The data were lost, **owing** to computer malfunction. The loss of data was **due to** computer malfunction.*

Слова *only, partly, mainly* необхідно ставити поруч зі словом, яке вони визначають: *The test consists **only** of new items.*

Не можна вживати розмовні вирази. Слід уникати словосполучення *as such*. Наприклад, замість: “*The SCAT is a reliable test of state anxiety. As such, it is suitable for experimental studies*” краще сказати: “*The SCAT is a reliable test of state anxiety; it is therefore suitable for experimental studies*”.

Рекомендується уникати *her, his* і інших слів, що вказують на статть.

Повідомляючи результати дослідження, потрібно вживати *the past tense*, а для їх обговорення - *the present tense* (*Smith **reported** a similar result. We **have found** that.... A simple explanation of these findings is that...*).

Для перерахування ключових моментів всередині абзацу прийнято використовувати: (a) перший пункт, (b) другий пункт, (c) останній пункт. Якщо всередині пункту присутній кома чи коми, між пунктами слід ставити крапку з комою. Літери перед пунктами прийнято ставити в тому разі, якщо в тексті є посилання на один або більше пунктів списку.

Якщо елементи списку складаються з речень, перед ними вживаються кружечки, квадратики тощо. Але такі пункти нумеруються, якщо в подальшому на них є посилання.

Написання анотації

Анотація – це коротке повідомлення, яке допомагає читачеві швидко визначити мету роботи, і тому надає тільки найважливішу інформацію, без деталей. Це може бути анотація книги, наукової статті, доповіді тощо.

Написання анотації вимагає знання її структури, а також уміння переробляти інформацію, використовуючи спеціальні мовні засоби.

Структура анотації:

- 1) вступ (тема, мета роботи, яка анується);
- 2) основна частина (сутність роботи, що анується);
- 3) висновок (призначення роботи, анується).

Мовні засоби, які використовуються для логічного і зв'язкового викладу інформації.

Фрази, які можна використовувати для визначення *теми* роботи, яка анується:

The book (textbook, chapter, paper etc) is devoted (dedicated) to ...	Книга (підручник, розділ, стаття тощо) присвячений ...
The book (textbook, section, paper etc) deals with ...	У книзі (підручнику, розділу, статті тощо) розглядаються ...

Фрази, які можна використовувати для визначення *мети* роботи:

The purpose of the research (study, investigation etc) was ...	Метою дослідження було ...
- to clarify ...	- з'ясувати (потракувати) ...
- to determine (ascertain, establish) ...	- визначити (встановити) ...
- to elucidate ...	- висвітлити ...
- to explain ...	- пояснити ...
- to prove (validate) ...	- довести ...
- to substantiate ...	- обґрунтувати ...
- to compare ...	- порівняти ...
The book (paper, section etc) presents	Книга (стаття, розділ тощо) представляє
- the analysis of ...	- аналіз ...
- the comparison of ...	- порівняння ...
- the description of ...	- опис ...
- the discussion of ...	- обговорення...
- the results of the research on / in (investigation of / into, study of) ...	- результати дослідження...
- a review of literature on ...	- аналіз літератури з ...

- a survey of the relevant literature	- огляд відповідної літератури
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Для викладу суті роботи, що анотується, можна використовувати наступні фрази:

The essence of the book (paper, section etc) is that...	Суть книги (статті. Розділу тощо) полягає в тому, що ...
The study emphasizes (stresses) the importance of ...	У дослідженні підкреслюється важливість ...
The author focuses on ...	Автор зосереджується на ...
Particular importance (significance, value, weight) is attached to ...	Особливе значення приділяється...
Readers' attention is called (attracted, drawn) to ...	Увага читачів привертається до ...
The obtained data are exemplified with ...	Прикладом отриманих даних слугує ...
It follows from the book (paper, chapter etc) that ...	Із книги (статті, розділу тощо) випливає, що ...
Hence (therefore, thus) it can be concluded that ...	Отже (таким чином), можна зробити висновок, що ...

Фрази, які можна використовувати при визначенні *цільової аудиторії* роботи, яка анотується:

The book (textbook, paper etc.) is intended for ...	Книга (підручник, стаття тощо) призначена для ...
The book (textbook, paper etc) may be useful (helpful, valuable) for ... - interns and doctors - medical students	Книга (підручник, стаття) може бути корисною для ... - інтернів і лікарів - студентів-медиків

Приклад анотації

Summary

Text "Forecasting supply of employees" is devoted to measures that are crucial for estimating the future supply of individuals with appropriate skills. The author shows the essence of two predictions involved in the aforementioned process and gives description of the relevant forecasting techniques. Particular importance is attached to such a quantitative technique. The application of a qualitative forecasting method is exemplified with an imaginary business situation. Readers' attention is called to practical effects of the techniques under consideration. The text is intended for students majoring in Public Health management in medicine.

3. Відредагуйте написану анотацію. Під час редагування анотації необхідно звернути увагу на наступне:

- наскільки чітко дотримано структуру анотації;
- чи дає вступ уявлення про тему і цілі анотованого твору;
- наскільки точно визначено сутність анотованої роботи;

- чи не використано зайву інформацію;
- чи правильно побудовано реченняї;
- наскільки дотримано норми правопису.

Доцільно здійснювати редагування анотації на комп'ютері. Це дозволить вам заощадити час і сприятиме розширенню вашого словникового запасу завдяки можливості комп'ютера надавати синоніми (команда «Тезаурус»).

Section IV. Texts for the summary writing

Завдання.

Написати анотації до текстів поданих нижче, використовуючи теоретичний матеріал розділу III

Physical examination

Manual procedures

The physical examination continues the diagnostic process, adding information obtained by inspection, palpation, percussion, and auscultation (see below). When data accumulated from the history and physical examination are complete, a working diagnosis is established, and tests are selected that will help to retain or exclude that diagnosis.

Patients are usually apprehensive and anxious when being examined because they feel exposed, vulnerable, and afraid of discomfort. The physician attempts to allay that anxiety by explaining which examinations are to be performed and the degree of discomfort that will be entailed. Throughout the examination, concern for the patient's dignity must be maintained.

Inspection

A wide array of sophisticated instruments is available to assist with examinations, but a well-performed visual inspection can often reveal more information. Osler admonished physicians to closely observe patients before touching them, to cultivate the power of observation, as it is one of the greatest diagnostic tools. Wasting and hallmarks of poor nutrition may indicate chronic disease; poor grooming or slack posture may suggest depression or low self-esteem.

Inspection begins with the patient's general appearance, state of nutrition, symmetry, and posture. The physician then proceeds to more specific examination of the skin—looking for redness or other signs of infection, hair loss, nail thickening, and moles or other areas of pigmentation—and inquires about any recent changes in skin lesions that could indicate early cancer.

Examination of the nails can provide important clues about systemic disease. Clubbing of the nails (broadening of the nailbeds, with curved and shiny nails) may indicate congenital heart disease, chronic obstructive pulmonary disease, bronchogenic carcinoma, or another cardiac or pulmonary condition. Pitting of the nails occurs in about 50 percent of patients with psoriasis.

Inspection should encompass, in particular, areas that the patient normally would not be able to see, such as the scalp, back, and buttocks.

The skin should always be inspected for cancer, though it is sometimes difficult to differentiate a benign mole (nevus) from a cancer. The most dangerous skin cancer, malignant melanoma, occurs in about 1 in 10,000 people and can spread readily throughout the body. A squamous-cell carcinoma also may spread but is slow to do so and can be completely cured by early detection and removal. Basal-cell cancer is the most common form of skin cancer, and, though it is locally invasive, it almost never spreads distantly to other parts of the body. Suspicious lesions are those

that have recently enlarged, started to bleed, become darker, or developed an irregular outline. Most skin cancers occur on areas of the body that have been exposed to the sun; they are more common in light-skinned individuals with blond hair and blue eyes who sunburn easily.

The most common premalignant (precancerous) skin lesion is actinic keratosis, a rough, scaling, red or brown papule that appears on sun-exposed areas such as a bald scalp, ears, the forehead, and the back of the hands. These lesions can be easily removed by cryotherapy (therapeutic use of cold), electrodesiccation (dehydration of tissue by electric current), or surgical excision. Some skin lesions, including melanoma, are treated with local excision.

Palpation

Palpation is the act of feeling the surface of the body with the hands to determine the characteristics of the organs beneath the surface. It can be performed with one hand or two and can be light or deep.

Light palpation is used to detect tenderness, muscle spasm, or rigidity of the abdomen. If abdominal pain is present, gentle palpation begins farthest away from the pain to localize the point of maximum tenderness. Acute inflammation in the abdomen, as in acute appendicitis, causes peritoneal irritation, resulting in not only localized tenderness in the right lower abdomen but also a guarding reaction (tightening and rigidity) by the muscles in that area to protect the inflamed organ from the external pressure.

Deep palpation of the abdomen is used to determine the size of the liver, spleen, or kidneys and to detect an abnormal mass. An abdominal aortic aneurysm can be detected by palpating a pulsatile mass in the upper abdomen. An acutely tender mass in the right upper abdomen that is more painful on inspiration is probably an inflamed gallbladder. An unexplained nontender abdominal mass could be as nonthreatening as a hard stool or as serious as a tumour.

Palpation also is used to detect and evaluate abnormal lesions in the breast (mammary gland), prostate, lymph nodes, or testicles. Proper breast examination includes frequent (at least monthly) self-examinations and an annual examination by a physician. Palpation should be methodical and performed over the entire breast; the method of action is done either in concentric circles or outward from the nipple using a spokes-of-a-wheel approach. Suspicious breast lesions are hard and fixed rather than movable. Skin retraction or breast asymmetry can indicate an underlying, potentially serious lesion. Cancers are usually not tender, and benign lesions are more likely to be round, elastic or firm, movable, and well-defined. Similarly, suspicious prostate lesions are hard, irregular nodules within the prostate, whereas benign prostatic hyperplasia (BPH) is a soft symmetrical enlargement of the gland.

Palpation also can detect cardiac (cardiovascular disease) enlargement if the point of maximal impulse (PMI) of the heart is farther left than normal. Other cardiac abnormalities can be suspected if a thrill is felt using light palpation over the chest wall. A thrill is a vibratory sensation felt on the skin overlying an area of turbulence and indicates a loud heart murmur usually caused by an incompetent heart valve.

Percussion

Percussion is a diagnostic procedure used to determine the density of a part by tapping the surface with short, sharp blows and evaluating the resulting sounds (sound). In the abdomen it can be used to detect fluid (ascites),

a gaseous distention of the intestine as occurs in bowel obstruction, or an enlargement of the liver. It is used most often to evaluate the chest. Percussion produces a resonant note when the area over a healthy lung is struck; a dull sound, however, will emanate if the lung contains fluid, as in pneumonia, or when a region over a solid mass such as the heart is tapped. A lung that is diseased with emphysema contains more air than a healthy lung and produces hyperresonance. A stomach distended with air will produce a high-pitched, hollow tympanic sound.

Auscultation

Auscultation is performed with a stethoscope to evaluate sounds produced by the heart, lungs, blood vessels, or bowels. The lack of bowel sounds indicates a nonfunctioning or paralyzed bowel, and high-pitched “tinkling” bowel sounds suggest bowel obstruction. The “growling” of the stomach is an accentuation of these sounds during periods of bowel hyperactivity.

Bruits are blowing vascular sounds resembling heart murmurs that are perceived over partially occluded blood vessels. When detected over the carotid arteries, a bruit may indicate an increased risk of stroke; when produced by the abdomen, it may indicate partial obstruction of the aorta or other major arteries such as the renal, iliac, or femoral arteries.

Listening to the sound of air passing in and out of the lungs can be useful in detecting an obstruction as in asthma or an inflammation as in bronchitis or pneumonia. Adventitious sounds are those heard in addition to normal breathing sounds and include crackles, wheezes, and rubs. Crackles (also called rales) resemble the sound made by rubbing hair between the fingers next to the ear. They are caused by fluid in the small passageways that adheres to the walls during respiration. Crackles are heard in congestive heart failure and pneumonia. Wheezes, musical sounds heard mostly during expiration, are caused by rapid airflow through a partially obstructed airway as in asthma or bronchitis. Pleural rubs sound like creaking leather and are caused by pleural surfaces roughened by inflammation moving against each other, which occurs in patients with pneumonia and pulmonary infarction.

Cardiac (cardiovascular disease) auscultation is the evaluation of the sounds made by the heart valves—namely, the aortic, pulmonary, tricuspid, and mitral—for murmurs that may be due to turbulent blood flow or vibrations from a heart valve deformity. Murmurs may be physiological (unimportant clinically) or pathological, indicating a problem that needs attention, especially if they reflect obstruction of normal blood flow. Heart murmurs vary according to their timing in the cardiac cycle (i.e., during systole, the period of contraction when blood is pumped from the heart ventricles, or diastole, the period of filling of the right and left ventricles between contraction), location, duration, intensity, pitch, and quality. Intensity is graded on a scale from 1 to 6, with 6 being the loudest. Heart murmurs are described as “grade 2/6”—the numerator represents the intensity of the murmur, and the denominator indicates the highest grade of the scale being used. However, the intensity of the murmur alone provides little information about the clinical severity of the problem. An ejection murmur caused by turbulence across the aortic valve during systole can be either serious or nonthreatening depending on its cause, even though the intensity of the murmur may be the same. Therefore, the pitch and quality of the murmur also are described. Pitch is usually reported as high or low, and quality is described as harsh, soft, blowing, musical, or rumbling. For example, the murmur of mitral stenosis may be described as a grade 3/6, low-pitched, rumbling, presystolic murmur heard best at the apex and having an increased first heart sound at the apex.

Special examinations

Emergency

Of greatest importance in an emergency is the evaluation of systems that are essential to sustaining life—namely, the circulatory, respiratory (respiratory disease), and central nervous systems.

First, the person in distress should be checked to determine whether breathing is normal or at least whether there is adequate exchange of air to ensure oxygenation of the blood. If the person is unconscious, the first maneuver is to tilt the head back and lift the chin (unless a neck injury is suspected) to prevent the tongue and jaw from obstructing the airway and then to provide artificial respiration. If the person has eaten recently, the cause may be obstruction by a foreign body (usually food), and the Heimlich maneuver (subdiaphragmatic abdominal thrust) should be performed.

Second, the circulation should be evaluated. Is the heart beating, and is the output adequate to provide oxygenated blood to the tissues, or has this been compromised by excessive bleeding? A blood pressure greater than 100/60 millimetres of mercury (mm Hg) indicates adequate perfusion.

Shock occurs when blood pressure falls to extremely low levels. The underlying cause of this precipitous drop characterizes shock; for example, hypovolemic shock is caused by inadequate blood volume, cardiogenic shock is caused by reduced heart function, and neurogenic shock and septic shock are caused by malfunction of the vascular system. This malfunction, which can be caused by severe allergic reaction such as anaphylaxis or by drug overdose, results in severely reduced peripheral vascular tone, in vasodilation, and in pooling of the blood. Signs of shock include a rapid and weak pulse, pale complexion, sweating, and confusion. Organs particularly sensitive to injury if the shock is not corrected are the brain, heart, lungs, kidneys, and liver.

An unconscious person may not respond to external stimulation, in which case the person would be in a coma, or the patient may exhibit varying levels of unconsciousness, responding only to painful stimuli (deep level of unconsciousness) or when shaken or called by name (light level). Pupil size and reactivity to light can provide clues to the status of the nervous system. Bilateral dilated pupils that do not contract when a light is placed on one of them indicate death or severe damage to the nervous system. Small pupils that do react to light are seen in narcotic overdose. If one pupil is larger than the other, a brain lesion on one side or hemorrhage should be suspected.

Pediatric

Examinations to assess the well-being of children (child development) begin at birth. The Apgar score (Apgar Score System), named for the anesthesiologist Virginia Apgar (Apgar, Virginia), is obtained at one and five minutes after birth and indicates the condition of the newborn. A score of 0 (absent), 1, and 2 is given for each of the five parameters, which are heart rate, respiratory effort, muscle tone, reflex irritability, and colour. Infants scoring between 7 and 10 at one minute will likely do well with no special treatment; those scoring between 4 and 6 may require stimulation or brief respiratory support; those scoring 3 or below will probably need extended resuscitative efforts. Infants who have a score of 7 or above at five minutes will continue to do well. The Apgar score is usually reported as two numbers, from 1 to 10, that are separated by a virgule, the first number being the score at one minute, the second the score at five minutes.

Developmental (biological development) assessment is measured with growth charts developed by the National Center for Health Statistics. A child's length (or height) and weight are plotted over time on standard graphs constructed from data gathered from a large number of average-sized children. The average length of a newborn infant is 50 centimetres (20 inches). The length increases by 50 percent at 12 months of age and doubles to 100 centimetres when the child is 4 years old. The average weight at birth is 3.4 kilograms (7.5 pounds), which doubles in 4 to 5 months and triples when the child is 12 months old. After 2 years of age, height increases by 5 centimetres and weight increases by 2.3 kilograms per year until the growth spurt during adolescence.

Psychosocial development can be measured using the Denver Developmental Screening Test. This test evaluates motor, language, and social development skills in children up to 6 years of age.

The adolescent growth spurt is closely associated with the development of the reproductive system. Puberty occurs in American girls starting at 10 or 11 years of age (average) and in American boys at age 11. In girls the first sign of puberty is the breast bud followed by breast and pubic hair development. In boys it is growth of the testes with reddening and wrinkling of the scrotum. Pubic hair appears within six months of these first signs of puberty, followed in another six months or so by enlargement of the penis.

Hearing is evaluated early, and a disorder should be suspected if speech is delayed or abnormal. Vision testing is begun in the newborn to detect strabismus and other congenital abnormalities. Visual acuity can be evaluated in children 2 to 3 years of age. Dental appointments should begin when the child is 2 or 3, because the eruption of primary teeth is usually complete by 2 years of age. Permanent teeth begin erupting about age 6 and are all in place by age 12 or 13 years.

Geriatric

The number of people in the United States older (human aging) than 65 years of age is increasing rapidly, and demographers project that soon 50 percent of the American population will live to 85 years or older. As the body ages there is a steady loss in organ reserve (ability to function beyond the level normally required, which may be called upon in an emergency), which leads to decreasing functional capacity and increasing vulnerability to disease and disability. Age-related changes include the following:

- Cellular changes occur, including decreased function and number.
- Increased collagen results in greater stiffness and decreased tissue elasticity.
- Muscle mass decreases, as does the mass of the liver, brain, and kidneys.
- Cardiac output is reduced, the ability to respond to stress diminishes, and blood flow to the kidneys and other organs decreases.
- Pulmonary function decreases because the number of alveoli lessens, expiratory muscles weaken, and there is a reduction in elastic recoil.
- Gastrointestinal changes occur, including decreased secretion of stomach acid; decreased intestinal motility, resulting in constipation and dehydration of the stools; slower metabolism of drugs by the liver; increased incidence of

gallstones; and loss of teeth, impairing proper chewing and digestion. Diverticulosis occurs in more than 50 percent of persons by age 80.

- Excretory function diminishes because of a decrease in kidney mass and in the number of functioning nephrons.

- Endocrine changes are noted and can include decreased functioning of thyroid and adrenal glands and decreased insulin production by the pancreas along with increasing insulin resistance that results in type II diabetes mellitus.

- Neurological changes occur, including a slowing of nerve conduction velocity, a loss of brain substance, a reduction in the amount of deep sleep and an increase in the number of brief arousals, and a decrease in cerebral blood flow.

- Visual acuity, hearing, taste, and smell decline. Vision is much more limited in dim light. The incidence of glaucoma and cataracts increases.

- Height decreases because of the narrowing of the intervertebral disks and narrowing of the vertebrae, resulting in the loss of five centimetres by the age of 70 years.

osteoporosis, which is demineralization of bone and loss of bone mass, results in an increased risk of fracture, especially of the hip, wrist, and spine. Bone loss is accelerated in women during menopause but can be prevented by administration of estrogen and calcium. Progesterone is added to prevent endometrial cancer if the uterus is still present.

Cancers occur most frequently in the elderly. Carcinoma of the colon is predominantly a disease of the geriatric population and is the second leading cause of death from cancer in the United States.

Depression and other mood disorders are more common among older individuals than among younger persons. The symptoms of depression may be more vague and are more likely to occur as physical symptoms than in other age groups.

Dementia (loss of intellectual function) is common among the elderly, and Alzheimer's disease is thought to account for more than 60 percent of these cases. Alzheimer's disease is characterized by a slowly progressive cognitive decline, in the absence of other causes of dementia. It affects about 10 percent of all persons older than 65 years of age.

Psychiatric

Psychological dysfunction and stress-related illness are a significant problem in today's increasingly complex society. Anxiety and depression represent the two most common mental health disorders and are responsible for a high degree of morbidity and mortality.

Disorders of mood

Major depression and other mood disorders such as dysthymia, bipolar disorder, and cyclothymia are common and very treatable forms of psychiatric problems. Depression is one of the most common conditions encountered in medical practice and affects up to 25 percent of women and 12 percent of men. Untreated depression can persist for two years or longer. Sixty percent of patients who receive treatment and recover will experience a recurrence of depression within three years. Fortunately, most episodes of major depression respond well to treatment.

For the diagnosis of major depression to be made, a depressed mood or loss of interest or pleasure in almost all activities must be present for at least two weeks and at least four of the following symptoms must be experienced: sleep disturbance (usually early morning awakening), fatigue or loss of energy, feelings of worthlessness or excessive guilt, diminished ability to concentrate or make decisions, agitation (anxiety or restlessness) or slowed movements, change in appetite with or without weight loss, and recurrent thoughts of death or suicide.

Dysthymia, or minor depression, is the presence of a depressed mood for most of the day for two years with no more than two months' freedom from symptoms. In addition at least two of the following symptoms must occur concurrently with the depression: disruption in eating habits—poor appetite or overeating; disturbed sleeping pattern—insomnia or hypersomnia; low energy or fatigue; low self-esteem; poor concentration or difficulty making decisions; and a feeling of hopelessness.

Bipolar disorder (manic-depressive disorder) is characterized by recurrent episodes of mania and major depression. Most of those who suffer from this condition (60 to 80 percent) initially manifest a manic phase, followed by depression. Manic symptoms consist of feelings of inflated self-esteem or grandiosity, a decreased need for sleep, unusual loquacity, an unconnected flow of ideas, distractibility, or excessive involvement in pleasurable activities that have a high potential for painful consequences, such as buying sprees or sexual indiscretions. Lithium is an effective drug for controlling these symptoms, although additional medications such as a benzodiazepine are needed to counteract an acute manic phase, and other antidepressants are necessary to treat bouts of major depression.

Cyclothymia is a chronic mood disturbance and is a milder form of bipolar disorder. For this diagnosis to be made, the patient will have exhibited at least two years of hypomania (moderate mania) and numerous periods of depressed mood that do not meet the criteria for major depression.

Anxiety disorders

The most common anxiety disorders are panic disorder, generalized anxiety disorder, post-traumatic stress disorder, phobic disorder, and obsessive-compulsive disorder.

Panic disorder is characterized by four panic attacks within a four-week period or one or more panic attacks followed by at least a month of persistent fear of having another attack. A panic attack is the sudden onset of intense apprehension, fear, or terror and at least four of the following conditions: shortness of breath or a smothering sensation, palpitations or accelerated heart rate, chest pain or discomfort, choking, dizziness or faintness, trembling or shaking, sweating, nausea or abdominal distress, a feeling of unreality, numbness or tingling, hot flashes or chills, fear of dying, and fear of “going crazy,” or losing control. A panic attack is unexpected and does not immediately precede or follow a stressful situation, although the person who experiences the attack usually is in a period of increased stress. Because somatic symptoms play a prominent role in a panic attack, it is easy to mistake the attack for other problems

such as heart disease or a gastrointestinal problem. Fortunately, the condition responds well to treatment consisting of pharmacotherapy and supportive counseling by the family physician.

There is a close association between panic disorder and depression, and a large percentage of persons suffering from panic disorder go on to experience a major depression within the next few years. Such antidepressants as imipramine and desipramine are the most effective treatment for panic disorder and may also provide effective relief of any associated depressive symptoms.

Agoraphobia, which literally means “fear of the marketplace” and indicates fear of being away from the safety of home, commonly occurs with panic disorder. Although the person avoids being alone, the only desired companions are those to whom no explanation of the agoraphobic behaviour is required. Places where crowds or situations would complicate a swift and unnoticed escape in the event of a panic attack are avoided.

Generalized anxiety disorder is the unrealistic or excessive worry about two or more life circumstances that is experienced more days than not for a period of six months or longer. Examples would be excessive worry about finances or danger to one's child when there is no reason for this concern. The anxious behaviour indicative of this disorder includes symptoms of motor tension (e.g., trembling or shaky feeling, muscle soreness or tension, and restlessness), autonomic hyperactivity (e.g., shortness of breath, palpitations, and dizziness), and vigilance and scanning, which includes difficulty concentrating, an exaggerated startle response, and a tense, keyed-up feeling.

post-traumatic stress disorder can result after exposure to a very distressing event that elicits feelings of intense terror, fear, or helplessness. Traumatic events such as having witnessed a murder or the sudden destruction of one's home or having participated in a military battle are cited as causes of this disorder. The person experiences frequent flashbacks and may exhibit increased irritability, have exaggerated startle reactions, and have sleeping difficulties, including nightmares. Intense anxiety can result when the person is exposed to environmental stimuli that symbolize or resemble the event.

Phobic (phobia) disorder involves the persistent and irrational fear of a specific object, activity, or situation that results in a compulsion to avoid that object or situation. The person recognizes the fear as excessive or unreasonable but cannot control the anxiety associated with it. Agoraphobia is one of the most severe phobias. Other phobias include the fear of heights (acrophobia), confined spaces (claustrophobia), animals, insects, snakes, and flying in airplanes. Social phobia is the fear of social situations in which the person dreads being criticized or humiliated. Performance anxiety is a form of social phobia.

Obsessive-compulsive disorder is marked by recurrent obsessions or compulsions that cause extreme distress and interfere with the normal activities of daily life. Obsessions are persistent ideas, thoughts, impulses, or images that are experienced as intrusive, senseless, and generally repugnant but which cannot be ignored or suppressed. Compulsions are repetitive, intentional behaviours performed in a ritualized manner in an attempt to neutralize the obsession and control the anxiety associated with it.

Tests and diagnostic procedures

Clinical laboratory tests

Laboratory tests can be valuable aids in making a diagnosis, but, as screening tools for detecting hidden disease in asymptomatic individuals, their usefulness is limited. The value of a test as a diagnostic aid depends on its sensitivity and specificity. Sensitivity is the measure of the percentage of individuals with the disease who have a positive test result (i.e., people with the disease who are correctly identified by the procedure), and specificity is the measure of the percentage of people without the disease who have a negative test result (i.e., healthy individuals correctly identified as free of the disease). If a test is 100 percent sensitive and the test result is negative, it can be said with certainty that the person does not have the disease, because there will be no false-negative results. If the test is not specific enough, however, it will yield a large number of false-positive results (positive test results for those who do not have the disease). The ideal test would be 100 percent sensitive and 100 percent specific; an example would be an early pregnancy test that was so accurate that it was positive in every woman who was pregnant and was never positive in a woman who was not pregnant. Unfortunately no such test exists. The normal value for a test is based on 95 percent of the population tested being free of disease, meaning that 1 out of every 20 test results in healthy individuals will be outside the normal range and therefore positive for the disease.

In the past, physicians would order selected tests based on the likelihood that the person had a certain disease. With the advent of automated analyzers, an increasing number and variety of tests have been made available at greatly reduced cost so that as many as 18 or more tests can be performed for what it previously cost to carry out three or four individual tests. A panel of chemical tests for blood and urine have become routine components of the basic medical workup. A disadvantage of this strategy is that each test produces some false-positive results and requires additional tests to rule out these diseases. The trend is reversing to perform only those tests most likely to be cost-effective.

A normal laboratory value is one that falls within a range that represents most healthy individuals. It is clear, however, that some healthy persons will have values outside that range and some individuals with disease will have values within the normal range. Thus, no sharp line divides normal and abnormal values. Tables of normal reference values must be updated regularly to react to changes in laboratory technique. Many normal values vary dramatically with age and gender.

Worldwide, the standard for reporting laboratory measurements is the International System of Units (SI units). The United States is the only major industrialized country that has not adopted the International System and continues to use customary units of measurement. Most tables provide both units to facilitate communication and understanding.

Body fluid tests

Blood (blood analysis)

Blood is composed of plasma and blood cells. The blood cells—erythrocytes (red blood cells), leukocytes (white blood cells), and thrombocytes (platelets)—are suspended in the plasma with other particulate matter. Plasma is a clear, straw-coloured fluid that makes up more than half the volume of blood. It is distinguished from serum, the clear, cell-free fluid in which fibrinogen has been converted to fibrin and from which some clotting proteins have been removed. Serum is formed when the plasma or whole blood is allowed to clot. Centrifugation can be used to separate the plasma or serum from blood samples. Tests to measure the concentration of substances in the blood may use plasma, serum, or whole blood that has been anticoagulated to keep all the contents in suspension.

A complete blood count (CBC) is a measure of the hematologic parameters of the blood (see the table—> for reference values). Included in the CBC is the calculation of the number of red blood cells (red blood cell count) or white blood cells (white blood cell count) in a cubic millimetre (mm³) of blood, a differential white blood cell count, a hemoglobin assay, a hematocrit, calculations of red cell volume, and a platelet count.

The differential white blood cell count includes measurements of the different types of white blood cells that constitute the total white blood cell count: the band neutrophils, segmented neutrophils, lymphocytes, monocytes, eosinophils, and basophils. A specific infection can be suspected based on the type of leukocyte that has an abnormal value. Viral infections usually affect the lymphocyte count, whereas bacterial infections increase the percentage of band neutrophils. Eosinophils are increased in those with allergic conditions and some parasitic infections. Infection with human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS), damages the body's ability to fight infection. The immune system of a healthy individual responds to infection by increasing the number of white blood cells; however, the immune system infected with HIV is unable to mount a defense of white blood cells (namely, lymphocytes) and cannot defend the body against viral, bacterial, or parasitic assault.

Calculations of red blood cells provide important information on the possible etiology (origin) of a disease. For example, the mean corpuscular volume (MCV) is the most useful indicator for anemia. The reticulocyte count, which measures the number of young red blood cells being produced, is used to distinguish between anemias resulting from a decrease in production of erythrocytes and those caused by an increase in destruction or loss of erythrocytes. An increase in the number of red blood cells (polycythemia) is normal for persons living at high altitudes, but in most of the population it indicates disease.

Platelets (platelet), small structures that are two to four micrometres in diameter, play a role in blood clotting. A decrease in the platelet count can result in bleeding if the number falls to a value below 20,000 platelets per microlitre. Counts above 50,000 to 100,000 per microlitre may be required for invasive or surgical procedures. In addition, platelet function is also important. For example, patients with a normal platelet count who have been on antiplatelet drugs such as aspirin may have increased or severe bleeding when subjected to cardiovascular surgical procedures.

Hematopoiesis (blood cell formation) (the production of blood cells) occurs in the bone marrow, and many types of blood disorders can be diagnosed best by analyzing a sample of bone marrow removed by a needle from the centre of the pelvic bone or the sternum (bone marrow biopsy).

Bleeding (bleeding and blood clotting) disorders are suspected when blood is seen in the skin (purpura) or a wound is delayed in clotting. In addition to a low platelet count in the peripheral blood, there may be a decrease in megakaryocytes, cells in the bone marrow that form platelets. A bleeding time greater than 20 minutes indicates an abnormality of platelet function. Other screening tests for coagulation disorders include the prothrombin time (PT) test, the activated partial thromboplastin time (APTT) test, and the plasma fibrinogen assay. Specific procoagulant proteins, which are enzymes essential to the clotting of blood, should be assayed if a disorder associated with one of them is suspected. For example, factor VIII or IX can be assayed if the patient is thought to have hemophilia A or B, respectively. Deep-seated hemorrhages into joints or tissue spaces after apparent minor trauma and a family history of bleeding disorders may indicate hereditary hemophilia.

The erythrocyte sedimentation rate (ESR) is the rate at which red blood cells settle in a column of blood in one hour. It is a nonspecific indicator of inflammatory disease that is also increased in anemia.

The Coombs, or antiglobulin, test (AGT) is used to test red blood cells for compatibility when doing a cross match between donor red blood cells and recipient serum. The AGT test detects antibodies that would cause life-threatening immune destruction during the transfusion of red blood cells. It also is used to detect antibodies to red blood cells in hemolytic disease of the newborn and drug-induced hemolytic anemias.

Urine

Examining the urine is one of the oldest forms of diagnostic testing, extending back to the days of Hippocrates. Physicians observed the urine (uroscopy) to diagnose all forms of illness because direct examination of a patient, or at least disrobing the patient, was socially unacceptable (see above Historical aspects (diagnosis)).

Urinalysis is the most commonly performed test in the physician's office. It consists of (1) a gross examination, in which the colour, turbidity, and specific gravity of the urine are assessed, (2) the use of a dipstick (a plastic strip containing reagent pads) to test for bilirubin, blood, glucose, ketones, leukocyte esterase, nitrite, pH, protein, and urobilinogen, and (3) a microscopic (microscope) examination of a centrifuged specimen to detect red or white blood cells, casts, crystals, and bacteria. The urine is collected using a "clean-catch" technique to eliminate contamination with bacteria from skin or vaginal secretions.

Dipstick tests are available that contain from 2 to 10 different tests. The test for glucose, which likely indicates diabetes, and the test for protein, which indicates kidney disease, tumours of the urinary tract, or hypertensive disorders of pregnancy, are two of the most important assays available.

The microscopic examination is the most valuable urinalysis test. It will show a variety of cells that are normally shed from the urinary tract. Usually up to five white blood cells per high-power field (HPF) are present; more than 10 white blood cells per HPF indicates a urinary tract infection. Red blood cells in the urine sediment can be

indicative of urinary tract inflammation and can also be a sign of a malignant tumour of the kidney, bladder, or urinary tract. More than two red blood cells per HPF is abnormal, although in women this is often due to vaginal contamination from menstruation. The identification of red blood cells in the urine (hematuria) always demands follow-up to determine the cause and to rule out the presence of a neoplasm (tumour). Cylindrically shaped urinary casts, shed from the kidney's tubules, consist of protein mixed with cells or other materials and may indicate renal disease if present in large numbers. Various crystals also are found in the urinary sediment, but these are generally of little clinical significance. Occasionally, the presence of specific crystals may help confirm a diagnosis; for example, uric acid crystals in the urine may be associated with gout.

Feces

The tests most commonly performed on feces are the fecal occult blood test (FOBT), stool cultures, and the examination for parasites. The fecal occult blood test is a low-cost method for detecting bleeding, which may be the first sign of carcinoma of the colon or rectum. Although the false-positive rate for this test is low, the false-negative rate is high. It is more likely to detect lesions in the right (ascending) colon because they bleed more than those in the left (descending) colon. Routine surveillance for colorectal cancer depends on periodic fecal occult blood testing combined with direct visualization of the lower colon with a sigmoidoscope (see below).

Individuals who are at increased risk for colon cancer and should be screened regularly are identified by any of the following criteria: age greater than 50 years, previous colorectal cancer or adenoma, family history of colon cancer or polyps in a first-degree relative or another genetic predisposition (e.g., cancer family syndrome), history of ulcerative colitis or Crohn's disease, or personal or family history of genital or breast cancer.

Stool cultures are obtained when diarrhea is severe and particular bacteria such as Salmonella, Shigella, or Giardia are suspected. If a parasitic infection is suspected, the stool is examined under the microscope for the eggs or cysts of parasites such as pinworms (*Enterobius vermicularis*) or roundworms (*Ascaris lumbricoides*).

Miscellaneous tests

Immunologic (immunology) procedures

Immunologic blood tests demonstrate abnormalities of the immune system. Immunity to disease depends on the body's ability to produce antibodies (immunoglobulins) when challenged by foreign substances (antigens). Antibodies bind to and help eliminate antigens from the body. The inability of the body to produce certain classes of immunoglobulins (IgG, IgA, IgM, IgD, IgE) can lead to disease. Complexes formed by the antigen-antibody reaction can be deposited in almost any tissue and can lead to malfunction of that organ. Immunofluorescence assays to detect antinuclear antibodies (antibodies that will bind to antigens within the nucleus) can be used to diagnose systemic lupus erythematosus. Assays to detect specific IgG and IgM complexes known as rheumatoid factors can help confirm the diagnosis of certain conditions, including Sjögren syndrome, rheumatoid arthritis, and chronic hepatitis.

The inability of the body to develop antibodies to invading bacteria may result from infection with HIV, which invades white blood cells—primarily monocytes, macrophages, and helper T lymphocytes. Helper T cells are a subgroup of T lymphocytes that are the primary regulators of the immune response and proliferate in response to

antigenic stimulation. Testing for HIV is performed with an enzyme-linked immunosorbent assay (ELISA) and the western immunoblotting antibody test (western blot).

Oral glucose tolerance test

The glucose tolerance test is used to confirm or exclude the diagnosis of diabetes mellitus when a fasting blood glucose test result is not definitive (i.e., greater than the upper range of the normal value, 115 milligrams per decilitre [mg/dl; 6.4 mmol/l], but less than the diagnostic level for diabetes, 140 mg/dl [7.8 mmol/l]). Even if a blood glucose test is obtained after fasting 10 to 12 hours and the level is above 140 mg/dl, it is important to confirm the result with a second determination to rule out other factors that may have given a one-time abnormal test result.

The oral glucose tolerance test measures the response of the body to a challenge load (an amount calculated to evoke a response) of glucose. It most often is used during pregnancy to detect early glucose intolerance that could pose a significant risk to the infant. After a fasting blood glucose test result is obtained, 75 grams of glucose (100 grams if the patient is pregnant) is administered and blood samples are taken every 30 minutes for two hours. In patients with diabetes, the blood glucose value will rise to a higher level and remain higher longer than in individuals who do not have diabetes.

A simpler but less reliable screening test is the two-hour postprandial blood glucose test performed two hours after intake of a standard glucose solution or a meal containing 100 grams of carbohydrates. A plasma glucose level above 140 mg/dl indicates the need for a glucose tolerance test.

Genetic (genetics, human) testing

The diagnostic evaluation of a genetic disorder (congenital disorder) begins with a medical history, a physical examination, and the construction of a family pedigree documenting the diseases and genetic disorders (genetic disease, human) present in the past three generations. This pedigree aids in determining if the problem is sex-linked, dominant, recessive, or not likely to be genetic.

Chemical, radiological, histopathologic, and electrodiagnostic procedures can diagnose basic defects in patients suspected of genetic disease. These include chromosome karyotyping (in which chromosomes are arranged according to a standard classification scheme), enzyme or hormone assays, amino acid chromatography of blood and urine, gene and deoxyribonucleic acid (DNA) probes, blood and Rh typing, immunoglobulin determination, electrodiagnostics, and hemoglobin electrophoresis.

As a result of genetic mutation, a genetic disorder can occur in a child with parents who are not affected by this disorder. This mutation can occur when the egg or sperm form (germinal mutation), or it can occur later following conception, when chromosomes from the egg and sperm combine. Mutations can occur spontaneously or be stimulated by such environmental factors as radiation or carcinogenic (cancer-causing) agents. Mutations occur with increasing frequency as people age. In men this may result from errors that occur throughout a lifetime as DNA replicates to produce sperm. In women nondisjunction of chromosomes becomes more common later in life, increasing the risk of aneuploidy (too many or too few chromosomes). Long-term exposure to ambient ionizing radiation may cause genetic mutations in either gender.

Cytogenetics is the microscopic study of chromosomes and the transmission of genetic material from parent to offspring. Humans have 22 pairs of autosomal chromosomes plus a pair of sex chromosomes, with one chromosome of each of the 23 pairs being inherited from each parent. There are 50,000 to 100,000 genes arranged along the chromosomes in linear order, each having a precise location, or locus. The international Human Genome Project, completed in 2003, mapped the location of all human genes.

Two broad classes of genes have been implicated in the development of cancer—oncogenes, which promote tumour growth, and tumour-suppressor genes. Both types of cancer-related genes, usually more than one variation of each type, are involved in a particular cancer, such as that of the colon or breast.

Prenatal diagnosis

Prenatal screening is performed if there is a family history of inherited disease, the mother is at an advanced age, a previous child had a chromosomal abnormality, or there is an ethnic indication of risk (Ashkenazic Jews and French Canadians are at increased risk for Tay-Sachs disease; blacks, Arabs, Turks, and others for sickle-cell anemia; and those of Mediterranean descent for thalassemia [hereditary anemia]). Parents can be tested before or after conception to determine whether they are carriers.

The most common screening test is an assay of alpha-fetoprotein (AFP) in the maternal serum. Elevated levels are associated with neural tube defects in the fetus such as spina bifida (defective closure of the spine) and anencephaly (absence of brain tissue). When alpha-fetoprotein levels are elevated, a more specific diagnosis is attempted using ultrasonography and amniocentesis to analyze the amniotic fluid for the presence of alpha-fetoprotein and acetylcholinesterase. Fetal cells contained in the amniotic fluid also can be cultured and the karyotype (chromosome morphology) determined to identify chromosomal abnormality. Cells for chromosome analysis also can be obtained by chorionic villus sampling, the direct needle aspiration of cells from the chorionic villus (future placenta). (See pregnancy: Human reproduction from conception to birth: The normal events of pregnancy: Prenatal care and testing (pregnancy).)

Biochemical (biochemistry) tests

Biochemical tests primarily detect enzymatic defects such as phenylketonuria, porphyria, and glycogen-storage disease. Although testing of newborns for all these abnormalities is possible, it is not cost-effective, because some are quite rare. Screening requirements for these disorders vary from state to state and depend on whether the disease is sufficiently common, has severe consequences, and can be treated or prevented if diagnosed early and whether the test can be applied to the entire population at risk.

Instrumental screening

Scopes

Sigmoidoscopy

Colorectal cancer is the second leading cause of death from cancer in the United States. This disease is preventable if adenomatous polyps, protruding growths from the mucosal surface that can progress to cancer, are

identified and removed. Although most adenomatous polyps are not cancerous, this possibility can only be discounted by histologic examination, which requires their removal. Fifty percent of all lesions occur in the rectum and sigmoid colon; they can be detected and removed using a 60-centimetre flexible sigmoidoscope. This instrument consists of a bundle of optical fibres that carry the visual image; it can be bent at the tip in four directions using controls at the base so that it can be maneuvered through the contorted sigmoid colon. The scope also contains a light source at the tip for illuminating the bowel, as well as separate passageways for instilling air and water, for suctioning fluid, and for inserting such instruments as biopsy forceps and snares. This scope has a smaller diameter than do rigid scopes and causes the patient less discomfort because of its flexibility. The operator can see the organ directly through a magnifying eyepiece or indirectly by a video monitor. The latter allows videotaping of suspicious lesions. Both rigid and flexible scopes can be fitted with a still camera.

The flexible fibre-optic sigmoidoscope comes in lengths of 35 and 60 centimetres. When fully inserted, the 60-centimetre scope can reach to the mid-descending colon and is the more frequently used scope. The colonoscope is a similar flexible fibre-optic scope that is longer and can reach the cecum, thus allowing evaluation of the entire colon. Its use requires that the patient be sedated because its passage through the entire colon is more uncomfortable.

A rigid, 25-centimetre sigmoidoscope is less expensive and allows direct visualization of the bowel, but it is less popular because of the greater discomfort its rigidity causes. The proctoscope and anoscope, shorter rigid instruments used to visualize the lower rectum and anus, are used to diagnose and treat hemorrhoids and other lesions in the anorectal area.

The incidence of colon cancer increases sharply after the age of 50. Asymptomatic individuals should have a sigmoidoscopy at age 50 and, if the result is negative, the test should be repeated every three to five years. Symptomatic persons and those with a family history of colon cancer should start regular examinations at age 40 or younger.

Esophagogastroduodenoscopy

As the lengthy name implies, esophagogastroduodenoscopy (EGD) is an endoscopic examination in which a scope is passed through the esophagus, stomach, and duodenum for a visual examination. This flexible fibre-optic scope contains the same channels as the flexible fibre-optic sigmoidoscope described above and usually has a camera attached to record visually recognizable abnormalities.

This procedure is indicated when symptoms of peptic (peptic ulcer) ulcer disease persist despite an adequate trial of treatment or when there is upper gastrointestinal bleeding or a suspicion of upper gastrointestinal cancer. It is also indicated if there is an esophageal stricture or obstruction or persistent vomiting of unknown cause. Esophageal strictures, if benign, can be successfully dilated, and upper gastrointestinal bleeding can be controlled using electrocoagulation. If the bleeding is from esophageal varices, they can be injected with a sclerosing (hardening) agent. A tissue sample can be removed and examined (a biopsy) from any suspicious lesion of the esophagus, stomach, or duodenum to make the specific tissue diagnosis that is necessary when deciding on the most appropriate therapy.

Laparoscopy and laparoscopic surgery

Fibre-optic technology has greatly expanded the procedures that can be performed by laparoscopy. By using local anesthesia and mild sedation, the abdominal wall can be punctured and the laparoscope inserted to examine the contents of the abdomen, obviating the need for major surgery and general anesthesia. Instruments are inserted through multiple ports in the abdomen, and surgeons can visualize abdominal organs without making an open incision into the abdomen. Valuable diagnostic information can be obtained by examining a biopsy specimen of the liver or abdominal lesions. Surgeons also can perform a variety of procedures with this method, such as removing the gallbladder and ligating the fallopian tubes (laparoscopic surgery). In orthopedic surgery the same technique is called arthroscopy, and it simplifies the treatment of many disorders that previously required a large surgical incision and a lengthy period of rehabilitation.

Nasopharyngolaryngoscopy

The use of fibre-optic nasopharyngolaryngoscopes permits visualization of structures inside the nasal passages such as the sinus openings, larynx, and vocal cords. A more thorough examination can be performed than is possible using indirect visualization with a mirror.

Colposcopy

The colposcope is a lighted magnifying scope used to directly visualize the vulva, vagina, and cervix and to evaluate suspicious areas. Colposcopy is used when the Papanicolaou test (or Pap smear; cervicovaginal cytology) suggests the possibility of cancer of the uterine cervix; it helps to detect precancerous abnormalities and identifies in which areas a biopsy should be performed for a definitive diagnosis to be made.

Graphing and miscellaneous instrumental screening

Electroencephalogram (electroencephalography)

The electroencephalogram (EEG) is a record of electrical activity of the brain recorded by 8 to 16 pairs of electrodes attached to the scalp. It is useful in the diagnosis of epilepsy, brain tumours, and sleep disorders and in the assessment of patients with suspected brain death. The latter use is particularly important if organs are to be saved for transplantation as soon as brain death is confirmed. Sleep deprivation and other provocative tests, including photic stimulation and hyperventilation, can be used to accentuate borderline findings. The EEG is of no use in diagnosing psychiatric illness.

Electrocardiogram (electrocardiography)

The electrocardiogram (ECG) is a graphic recording of the electrical activity of the heart detected at the body surface and amplified. It was invented by the Dutch physiologist Willem Einthoven (Einthoven, Willem) (1860–1927) and for many years was called an EKG after the German Elektrokardiogramm. Electrodes to record the electrical activity of the heart are placed at 10 different locations, one on each of the four limbs and six at different locations on the anterior chest wall. Twelve different leads, or electrical pictures, are generated, each having its own normal configuration.

The ECG is of greatest use in diagnosing cardiac arrhythmias (arrhythmia), acute and prior myocardial infarctions, pericardial disease, cardiac enlargement (atrial and ventricular), and various electrolyte disturbances and drug effects. The exercise electrocardiogram, or ECG stress test, is used to assess the ability of the coronary arteries to deliver oxygen while the heart is undergoing strain imposed by a standardized exercise protocol. If the blood supply to the heart is jeopardized during exercise, the inadequate oxygenation of the heart muscle is recorded by typical changes in the electrocardiogram that indicate coronary artery disease (narrowing of the coronary arteries). A normal ECG, however, does not exclude significant coronary artery disease and is not predictive of disease course.

Echocardiography

The echocardiogram is a noninvasive technique used to record the structure of the heart by using ultrahigh-frequency sound waves. A transducer placed on the chest wall emits a short burst of ultrasound waves and then measures the reflection, or echo of the sound as it bounces back from such cardiac structures as valves and the muscle wall. It is used to evaluate chamber size, wall thickness, wall motion, valve structure, and valve motion. It is the method of choice for detecting infection of the valves (endocarditis), intracardiac tumours, and pericardial fluid. Mitral valve prolapse is easily visualized by this noninvasive technique.

Cardiac catheterization and angiography

A more specific measurement of coronary artery narrowing is carried out by placing a catheter into the heart and injecting a radiopaque dye through the catheter, which allows the cardiac chambers and coronary arteries to be directly visualized. This test is more expensive and more hazardous than the noninvasive procedures and is usually performed after the others to quantify the severity of disease present and to establish whether the person is a candidate for surgical intervention with balloon angioplasty or coronary bypass surgery. It is also used to evaluate patients with suspected valvular disease and those with angina who do not respond to treatment.

Surgical examination

Biopsy

A biopsy is the removal of tissue for microscopic examination to establish a precise diagnosis. Tissue can be obtained from any organ by excision, incision, removal by a needle, or scraping. The tissue is then fixed in ethanol, formalin, or other suitable fixative, infiltrated with paraffin, and sectioned into very thin slices, which are placed on glass slides. The tissue is deparaffinized and stained to define the cellular characteristics. This allows the surgical pathologist to examine the tissue with a microscope and render a precise diagnosis. During surgery, tissue samples can be immediately frozen, and slices made with a microtome can be placed on a glass slide and rapidly stained. The surgeon is then given a “frozen section” report within minutes.

An excisional biopsy is the total removal of the lesion to be examined and is most often used to diagnose skin lesions. The major advantage of excisional biopsy is that it provides the pathologist with the entire lesion and minimizes the chance that a cancer in part of the lesion would be missed.

An incisional biopsy involves the removal of only a portion of the lesion for pathological examination and is used when the size or location of the tumour prohibits its complete excision. This technique also is used when a needle biopsy does not provide adequate information for a diagnosis to be made.

A needle biopsy is the simplest and least disruptive way to obtain tissue for pathological examination. This procedure can be performed using either a large cutting needle to obtain a “core” of tissue or a small-gauge needle. The latter technique, termed fine-needle aspiration biopsy, is accomplished by inserting the needle into the area of interest and applying suction to draw the tissue into the needle. A needle biopsy is often used to obtain specimens from breast masses. It is less expensive and involves less morbidity than does an open biopsy. The main disadvantages include the missing of deep lesions with the needle and the need for a specially trained pathologist to interpret the specimen accurately. As noted above, often more cells are needed for a precise diagnosis than are provided by a fine-needle biopsy.

Another form of aspiration biopsy is the endometrial biopsy, in which the specimen is obtained by applying suction through a curette inserted into the uterus to obtain cells from the internal lining.

Abrasion is a method by which cells are obtained from the surface of lesions using a brush or spatula. Cells from epithelial-lined body cavities and surfaces such as the vagina, bronchus, and stomach are examined using the Papanicolaou technique. The Papanicolaou test or smear, commonly called the Pap smear, is the examination of cervical cells that have been fixed and stained on a slide according to the technique developed by the Greek physician George Nicolas Papanicolaou. This technique also can be applied to cells obtained from other surfaces.

Mammography

New film screening techniques make it possible to detect lesions in the breast (mammary gland) using low doses of radiation. Mammography is never a substitute for a clinical breast examination by a physician, because not all lesions are detectable by X-ray examination; however, lesions often can be detected by mammography before they are palpable in the breast. The primary purpose for mammography is the detection of cancer at the earliest, treatable stage, before the lesion is palpable.

Mammography is most useful in older women whose breast tissue is less dense than that of younger women. Mammography is never a substitute for a biopsy if a suspicious mass is palpated. Some groups recommend an initial mammogram at 35 to 40 years of age to serve as a baseline for subsequent screening. The American Cancer Society recommends a mammogram every one to two years from age 40 to 49 and yearly thereafter. However, women at increased risk for breast cancer should consider initiating annual mammographic screening before the age of 40. The risk of breast cancer is doubled or trebled in women who have a sister with breast cancer or whose mother was diagnosed with breast cancer before the age of 40.

Computerized body scanning

Computed tomography (computerized axial tomography)

The introduction of computed tomography (CT scan) in 1972 was a major advance in visualizing almost all parts of the body. Particularly useful in diagnosing tumours and other space-occupying lesions, it uses a tiny X-ray beam that traverses the body in an axial plane. Detectors record the strength of the exiting X rays; this information is then processed by a computer and a cross-sectional image of the body produced.

CT is the preferred examination for evaluating stroke, particularly subarachnoid hemorrhage, as well as abdominal tumours and abscesses.

Ultrasonography (ultrasound)

Ultrasonography, or ultrasound imaging, uses pulsed or continuous high-frequency sound waves to image internal structures by recording the differing reflection signals. The sonographic image is not as precise as images obtained through computed tomography or magnetic resonance imaging, but it is used in many procedures because it is quick and relatively inexpensive and has no known biological hazards when used within the diagnostic range.

This method is used to diagnose gallstones, heart defects, and tumours. It is used to guide certain procedures such as needle biopsies and the introduction of tubes for drainage. It has become an essential part of obstetric (obstetrics and gynecology) and prenatal assessment, although controversy exists as to its routine use in obstetric care. Ultrasonography plays an integral role in the diagnosis and management of fetal abnormalities; it is also used to guide intrauterine corrective surgery.

Magnetic resonance imaging

Magnetic resonance imaging (MRI) relies on the response of magnetic fields to short bursts of radio-frequency waves to produce computer images that provide structural and biochemical information about tissue. The process uses radio waves and is thus much safer than imaging using X rays or gamma rays. This totally noninvasive but very expensive procedure is particularly useful in detecting cerebral edema, abnormalities of the spine, and early-stage cancer. In examining the brain, spinal cord, urinary bladder, pelvic organs, and cancellous bone, MRI is the superior imaging technique. Because patients must lie quietly inside a narrow tube, MRI may raise anxiety levels in the patients, especially those with claustrophobia. Another disadvantage of MRI is that it has a longer scanning time than CT, which makes it more sensitive to motion artifacts and thus of less value in scanning the chest or abdomen. Because of the strong magnetic field, MRI cannot be used if a pacemaker is present or if metal is present in critical areas such as the eye or brain.

MRI has largely supplanted arthrography, the injection of dye into a joint to visualize cartilage or ligament damage to the knee or shoulder, and myelography, the injection of dye into the spinal canal to visualize spinal cord or intervertebral disk abnormalities.

multiple sclerosis, a disease with multiple foci of demyelination (loss of the myelin sheath of a nerve) in the brain, sometimes can be diagnosed using MRI. However, because the test is not sufficiently sensitive, a normal MRI cannot exclude the diagnosis.

Magnetic resonance angiography, a unique form of MRI technology, can be used to produce an image of flowing blood. This permits the visualization of arteries and veins without the need for needles, catheters, or contrast agents.

CT and MRI provide two-dimensional views of cross sections of the body, and these images must be viewed in sequence by the radiologist. Computer technology now makes it possible to construct (holography) holograms that provide three-dimensional images from digital data obtained by conventional CT or MRI scanners. These holograms can be useful in locating lesions more precisely and in mapping the exact location of coronary arteries when planning bypass surgery or angioplasty.

Positron emission tomography

Positron emission tomography (PET) is a highly sensitive technique for diagnosing stroke and other neurological diseases such as multiple sclerosis and epilepsy. Positron-emitting radionuclides with short half-lives are used to detect cerebral blood flow, oxygen utilization, and glucose metabolism, providing both qualitative and quantitative information regarding metabolism and blood flow, such as in the heart.

Formulating a diagnosis

The process of formulating a diagnosis is called clinical decision making. The clinician uses the information gathered from the history and physical examination to develop a list of possible causes of the disorder, called the differential diagnosis. The clinician then decides what tests to order to help refine the list or identify the specific disease responsible for the patient's complaints. During this process, some possible diseases (hypotheses) will be discarded and new ones added as tests either confirm or deny the possibility that a given disease is present. The list is refined until the physician feels justified in moving forward to treatment. Even after treatment is begun, the list of possible diagnoses may be revised further if the patient does not progress as expected.

The hypotheses are ranked with the most likely disease placed first. Sometimes, however, a less likely disease is addressed first because it is more life-threatening and could lead to serious consequences if not treated promptly. Following this course, the possibility of a heart attack would be eliminated first in a patient experiencing chest pain and appendicitis would be the first condition to be addressed in a child with abdominal pain, even though another less serious disease is more likely.

An algorithm is a sequence of alternate steps that can be taken to solve problems—a decision tree. Starting with a chief complaint or key clue, the physician moves along this decision tree, directed one of two ways by each new piece of information, and eliminates diagnoses. If the wrong path is taken, the physician returns to a previous branching point and follows the other path. Computers can be used to assist in making the diagnosis; however, they lack the intuition of an experienced physician and the nonverbal diagnostic clues obtained during the interview.

Diagnostic tests rarely establish the presence of a disease without doubt. The greater the sensitivity and the specificity of the test, the more useful it will be. Ordering too many tests poses significant danger, not only because of low cost-effectiveness but also because a falsely abnormal test result requires a further series of tests to prove or disprove its accuracy. This further testing may involve additional discomfort, risk, and cost to the patient, which is

especially unfortunate if the tests need not have been ordered in the first place. It is just as important to know when not to order a test as to know which tests to order (see above Clinical laboratory tests (diagnosis)).

An important feature of clinical decision making is the ongoing relationship between the physician and patient. The knowledge a physician gains in caring for the patient for a long period of time can provide greater insight into the likelihood of a given disease being present. When the symptoms are caused by emotional factors, the familiar personal physician is more likely to accurately diagnose them than is a physician seeing the patient for the first time. Also, a lengthy and trusting association with a physician will often positively influence the patient's outcome. Thus, sporadic visits to the emergency department of a hospital, where physicians who are unfamiliar with the patient are asked to provide diagnoses and treatment without the benefit of this partnership, are more likely to be inefficient, expensive, and less personally satisfying.

Early in the course of a disease, decisions must be made with fewer clues to the diagnosis than are likely to be available later. One of the most difficult tasks in medicine is to separate, in the early stages of an illness, the serious and life-threatening diseases from the transient and minor ones. Many illnesses will resolve without a diagnosis ever being reached. Nevertheless, an illness may remain undiagnosed for months or years before new symptoms appear and the disease advances to a stage that permits diagnosis. An example is multiple sclerosis, which can present with nothing more than transient blurred vision and may take years before other more specific symptoms appear.

Patients often have undifferentiated complaints that can represent an uncommon serious disorder or a common but not very serious disorder. For example, a patient may experience fatigue. Depending on the patient's family history and personal background, the physician may think initially of depression and next of anemia secondary to gastrointestinal bleeding. A variety of less likely disorders will follow. Anemia is easy to rule out with inexpensive hemoglobin and hematocrit tests. These tests should be ordered even if depression is the correct diagnosis because anemia may contribute to the weariness and should be treated as well. Depression can be diagnosed with appropriate questioning, and a physical examination may eliminate many other diagnostic possibilities.

Section V. Medical reading for pleasure

TOM FEEL SERIOUSLY ILL

From "The Adventures of Tom Sawyer"

by Mark Twain

Monday morning found Tom Sawyer miserable. Monday morning always found him so, because it began another week's slow suffering in school. He generally began that day with wishing he had no interesting holiday, it made the going into captivity and fetters again so much more odious.

Tom lay thinking. Presently it occurred to him that he wished he was sick; then he could stay home from school. Here was a vague possibility. He canvassed his system. No ailment was found and he investigated again. This time he thought he could detect colicky symptoms, and he began to encourage them with considerable hope. But they soon grew feeble and presently died wholly away. He reflected further. Suddenly he discovered something. One of his upper teeth was loose. This was lucky; he was about to begin to groan, as a "starter", as he called it, when it occurred to him that if he came into court with that argument his aunt would pull it out, and that would hurt. So he thought he would hold the tooth in reserve for the present, and seek further. Nothing offered for some little time, and then he remembered hearing the doctor tell about a certain thing that laid up a patient for two or three weeks and threatened to make him lose a finger. So the boy eagerly drew his sore toe from under the sheet and held it up for inspection. But now he did not know the necessary symptoms. However, it seemed well worth while to chance it, so he felt to groaning with considerable spirit.

But Sid slept on, unconscious.

Tom groaned louder, and fancied that he began to feel pain in the toe.

No result from Sid.

Tom was painting with his exertions by this time. He took a rest and then swelled himself up and fetched a succession of admirable groans.

Sid snored on.

Tom was aggravated. He said "Sid, Sid!" and shook him. This course worked well, and Tom began to groan again. Sid yawned, stretched, then brought himself up on his elbow with a short, and began to stare at Tom. Tom went on groaning. Sid said:

"Tom! Say Tom!"

No response.

"Here, Tom! What is the matter. Tom?" And he shook him, and looked in his face anxiously.

Tom moaned out:

"Oh, don't, Sid. Don't joggle me."

"Why, what's the matter, Tom? I must call auntie."

"No, never mind. It'll be over by-and-by, maybe. Don't call anybody."

“But I must! Don’t groan so, Tom, it’s awful. How long have you been this way?”

“Hours. Ouch! Oh, don’t stir so, Sid. You’ll kill me.”

“Tom, why didn’t you wake me sooner? Oh, Tom, don’t! It makes my flesh crawl to hear you. Tom, what is the matter?”

“I forgive you everything, Sid. (Groan) Everything you’ve ever done to me. When I’m gone.”

“Oh, Tom, you ain’t dying, are you? Don’t Tom. Oh, don’t. Maybe –“

“I forgive everybody, Sid. (Groan) Tell ‘em so, Sid. And, Sid, you give my window-sash, and my cat with one eye to that new girl that’s come to town, and tell her –“

But Sid had snatched his clothes and gone. Tom was suffering in reality now, so handsomely was his imagination working, and so his groans had gathered quite a genuine tone.

Sid flew downstairs and said:

“Oh, Aunt Polly, come! Tom’s dying!”

“Dying!”

“Yes’m. Don’t wait – come quick!”

“Rubbage! I don’t believe it!”

But she fled upstairs nevertheless, with Sid and Marry at her heels. And her face grew white, too, and her lips trembled. When she reached the bedside she gasped out:

“You Tom! Tom, what’s the matter with you?”

“Oh, auntie, I’m –“

“What’s the matter with you – what is the matter with you, child?”

“Oh, auntie, my sore toe’s mortified!”

The old lady sank down into a chair and laughed a little, then cried a little, then did both together. This restored her, and she said:

“Tom, what a turn you did give me. Now you shut up that nonsense and climb out of this.”

The groans ceased, and the pain vanished from the toe. The boy felt a little foolish, and he said:

“Aunt Polly, it seemed mortified, and it hurt so I never minded my tooth at all.”

“Your tooth, indeed! What’s the matter with your tooth?”

“One of them’s loose, and it aches perfectly awful.”

“There, there now, don’t begin that groaning again. Open your mouth. Well, your tooth is loose, but you’re not going to die about that. Marry, get me a silk thread, and a chunk of fire out of the kitchen.”

Tom said:

“Oh, please auntie, don’t pull it out, it doesn’t hurt any more. I wish I may never stir if it does. Please don’t auntie. I don’t want to stay home from school.”

“Oh, you don’t, don’t you? So all this row was because you thought you’d get to stay home from school and go a-fishing? Tom, Tom, I love you so, and you seem to try every way you can to break my old heart with your outrageousness.”

By this time the dental instruments were ready. The old lady made one end of the silk thread fast to Tom’s tooth with a loop and tied the other to the bedpost. Then she seized the chunk of fire and suddenly thrust it almost into the boy’s face. The tooth hung dangling by the bed-post, now.

But all trials bring their compensations. As Tom wended to school after breakfast, he was the envy of every boy he met because the gap in his upper row of teeth enabled him to expectorate in a new and admirable way. He gathered quite a following of lads interested in the exhibition; and one that had cut his finger and had been a centre of fascination and homage up to this time, now found himself suddenly without an adherent, and shorn of his glory. His heart was heavy, and he said with a disdain which he did not feel, that it wasn't anything to spit like Tom Sawyer; but another boy said "Sour grapes!" and he wandered away a dismantled hero.

Завдання 1

Прочитати та перекласти текст за допомогою словника

Завдання 2

Дати відповіді на питання

1. Why did Monday morning find Tom miserable?
2. What trick did Tom decide to play?
3. Was anything wrong with Tom?
4. How did Tom succeed in making Sid believe that he was dying?
5. What did Sid do when Tom's groans had gathered quite a genuine tone?
6. Describe Aunt Polly's behaviour when she knew that Tom was dying.
7. Why did Tom tell Aunt Polly that he had not minded his tooth?
8. In what way was Tom's loose tooth pulled out?
9. Was Tom allowed to stay home from school?
10. What was the only compensation after all Tom's trials?
11. Why did Tom gather a following of lads?
12. Why did another boy go away a dismantled hero?

Завдання 3

Передати зміст тексту від особи: а)Tom, b) Sid, c)Aunt Poli.

Завдання 4

Прочитати і переказати запропоновані гумористичні історії

A n n: I have an awful toothache.

K a t e: I would take the tooth out if it were mine.

A n n: And so would I if it were yours.

A u n t i e (to her little niece): They tell me you had a toothache yesterday. Has it stopped aching now?

L i t t l e N i e c e: Don't know, auntie.

A u n t i e: Don't know; surely you know if the tooth is aching now.

L i t t l e N i e c e: No, I don't, the dentist has got it.

Patient: "Do you extract teeth painlessly?"

Dentist: "Not always – the other day I nearly dislocated my wrist"

A boy and his mother stood looking at a dentist's show-case.

"If I had to have false teeth, mother, I'd take that pair," said the small boy pointing.

"Hush, Willie," interrupted the mother quickly, shaking his arm, "haven't I told you it's bad manners to pick your teeth in public?"

A teacher asked a pupil to get a note from his mother to explain why he was late for his lesson.

The boy went out and came back in few minutes with a note. The teacher read: "John came late because he broke his leg."

The more we study, the more we know. The more we know, the more we forget. The more we forget, the less we know. The less we know, the less we forget. The less we forget, the more we know. So why study?

Voice on phone: "John Smith is sick and can't attend classes to-day."

Professor: "All right. Who is this speaking?"

Voice: "This is my father."

Mother: Well, my girl. Have you stopped crying?

Girl: No, I haven't. I am only resting.

"Why, boy, how is it you are so short for your age?"

"I am so busy. I have no time to grow."

Old Lady – And why are you crying, little girl?

Little Girl – Because my brother has a holiday and I haven't.

Old Lady – And why haven't you any holidays?

Little Girl – Because I don't go to school yet!

A VICTIM TO ONE HUNDRED AND SEVEN FATAL MALADIES

From "Three Men in a Boat"

by Jerome K. Jerome

There were four of us – George, and William Samuel Harris, and myself, and Montmorency. We were sitting in my room, smoking, and talking about how bad we were – bad from a medical point of view I mean, of course.

We were all feeling seedy, and we were getting quite nervous about it. Harris said he felt such extraordinary fits of giddiness come over him at times, that he hardly knew what he was doing; and then George said that he had fits of giddiness too, and hardly knew what he was doing. With me, it was my liver that was out of order. I knew it was my liver that was out of order, because I had just been reading a patent liver-pill circular, in which were detailed the various symptoms by which a man could tell when his liver was out of order. I had them all.

It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with in its most virulent form. The diagnosis seems in every case to correspond exactly with all the sensations that I have ever felt.

I remember going to the British Museum one day to read up the treatment for some slight ailment of which I had a touch – hay fever, I fancy it was. I got down the book, and read all I came to read; and then, in an unthinking moment, I idly turned the leaves, and began to indolently study diseases, generally. I forget which was the first distemper I plunged into – some fearful, devastating scourge, I know- and, before I had glanced half down the list of "premonitory symptoms," it was borne in upon me that I had fairly got it.

I sat for a while frozen with horror; and then in the listlessness of despair, I again turned over the pages. I came to typhoid fever – read the symptoms – discovered that I had typhoid fever, must have had it for months without knowing it – wondered what else I had got; turned up St. Vitus's Dance - found, as I expected, that I had that too – began to get interested in my case, and determined to sift it to the bottom, and so started alphabetically – read up ague, and learnt that I was sickening for it, and that the acute stage would commence in about another fortnight. Bright's

disease, I was relieved to find, I had only in a modified form, and, so far as that was concerned, I might live for years. Cholera I had, with severe complications; and diphtheria I seemed to have been born with. I plodded conscientiously through the twenty-six letters, and the only malady I could conclude I had not got was housemaid's knee.

I felt rather hurt about this at first; it seemed somehow to be a sort of slight. Why hadn't I got housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I had every other known malady in the pharmacology, and I grew less selfish, and determined to do without housemaid's knee. Gout, in its most malignant stage, it would appear, had seized me without my being aware of it; and zymosis I had evidently been suffering with from boyhood. There were no more diseases after zymosis, so I concluded there was nothing else the matter with me.

I sat and pondered. I thought what an interesting case I must be from a medical point of view, what an acquisition I should be to a class! Students would have no need to "walk the hospitals" if they had me. I was a hospital in myself. All they need do would be to walk round me, and, after that, take their diploma.

Then I wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel any pulse at all. Then, all of a sudden, it seemed to start off. I pulled out my watch and timed it. I made it a hundred and forty-seven to the minute. I tried to feel my heart. I could not feel my heart. It had stopped beating. I have since been induced to come to the opinion that it must have been there all the time, and must have been beating, but I cannot account for it. I patted myself all over my front, from what I call my waist up to my head, and I went a bit round each side, and a little way up the back. But I could not feel or hear anything. I tried to look at my tongue. I stuck it out as far as ever it would go, and I shut one eye, and tried to examine it with the other. I could only see the tip, and the only thing that I could gain from that was to feel more certain than before that I had scarlet fever.

I had walked into that reading-room a happy, healthy man, I crawled out a decrepit wreck.

I went to my medical man. He is an old chum of mine, and feels my pulse, and looks at my tongue, and talks about the weather, all for nothing, when I fancy I'm ill; so I thought I would do him a good turn by going to him now. "What a doctor wants," I said, "is practice. He shall have me. He will get more practice out of me than out of seventeen hundred of your ordinary, commonplace patient, with only one or two diseases each." So I went straight up and saw him, and he said:

"Well, what's the matter with you?"

I said:

"I will not take up your time, dear boy, with telling you what is the matter with me. Life is brief and you might pass away before I had finished. But I will tell you what is not the matter with me. I have not got housemaid's knee. Why I have not got housemaid's knee, I cannot tell you; but the fact remains that I have not got it. Everything else, however, I have got."

And I told him how I came to discover it all.

Then he opened me and looked down me, and clutched hold of my wrist, and then he hit me over the chest when I wasn't expecting it – a cowardly thing to do, I call it – and immediately afterwards butted me with the side of his

head. After that, he sat down and wrote out a prescription, and folded it up and gave it me, and I put it in my pocket and went out.

I did not open it. I took it to the nearest chemist's, and handed it in. The man read it, and then handed it back. He said he didn't keep it.

I said:

"You are a chemist?"

He said:

"I am a chemist. If I was a co-operative stores and family hotel combined, I might be able to oblige you. Being only a chemist hampers me."

I read the prescription. It ran:

"1 lb. beefsteak, with

1 pt. bitter beer

every six hours.

1 ten-mile walk every morning.

1 bed at 11 sharp every night.

And don't stuff up your head with things you don't understand."

I followed the directions, with the happy result – speaking for myself – that my life was preserved, and is still going on.

In the present instance, going back to the liverpill circular, I had the symptoms, beyond all mistake, the chief among them being "a general disinclination to work of any kind."

What I suffer in that way no tongue can tell. From my earliest infancy I have been a martyr to it. As a boy, the disease hardly ever left me for a day. They did not know, then, that it was my liver. Medical science was in a far less advanced state than now, and they used to put it down to laziness.

"Why, you skulking little devil, you," they would say, "get up and do something for your living, can't you?" – not knowing, of course, that I was ill.

And they didn't give me pills; they gave me clumps on the side of the head. And, strange as it may appear, those clumps on the head often cured me – for the time being. I have known one clump on the head have more effect upon my liver, and make me feel more anxious to go straight away then and there, and do what was wanted to be done, without further loss of time, than a whole box of pills does now.

You know, it often is so – those simple, old-fashioned remedies are sometimes more efficacious than all the dispensary stuff.

Завдання1

Переказати текст, дати відповіді на питання

1. What were the three friends talking about?
2. Why were they getting nervous?
3. What was written in a patent liver-pill circular?

4. With what purpose did Jim go to the British Museum?
5. What was borne in upon him when he turned over the pages of a medical handbook?
6. What was the only disease Jim did not have?
7. Why was he an interesting case from a medical point of view, in his opinion?
8. What did he find after having investigated his system?
9. Were did he go from the reading room?
10. Did the doctor prescribe anything to Jim? Describe the doctor's examination.
11. What we the chemist's words when he handed the prescription back to Jim?
12. How did the prescription run?
13. In what way was Jim cured in his boyhood?
14. Was that treatment effective?

Завдання 2

Передати зміст розповіді від особи: a) George, b) the medical man, c) the chemist.

Завдання 3

Передати зміст по ролях

Завдання 4

Перекласти рідною мовою вирази, подані нижче. Скласти речення, використовуючи їх.

1. to feel seed; 2. patent medicine advertisement; 3. to be impelled to the conclusion; 4. to deal with; 5. in an unthinking moment; 6. to glance half down the list; 7. for a while; 8. to grow less selfish; 9. there was nothing else the matter wit me; 10. a little way; 11. all for morning; 12. to do a good turn; 13. to take up one's time; 14. to follow the directions; 15. to be in a far less advanced state; 16. for the time being.

Завдання 5

Перкласти на англійську мову вирази, подані нижче

1. з медичної точки зору; 2. ґрунтовно; 3. не усвідомлюючи будь-що ; 4. раптово; 5. рахувати пульс;
6. дійти думки; 7. виписувати рецепт; 8. поза сумнівами; 9. загальна неприхильність до будь-якої роботи;
10. словами не розповісти; 11. як би це не здавалося дивним; 12. негайно ж

AT THE CONSULTING-ROOM

From "How to be a Doctor"

by Stephen Leacock

The point I want to develop is that the modern doctor's business is an extremely simple one, which could be acquired in about two weeks. This is the way it is done.

The patient enters the consulting-room. "Doctor," he says, "I have a bad pain." "Where is it?" "Here." "Stand up," says the doctor, "and put your arms up above your head." Then the doctor goes behind the patient and strikes him

a powerful blow in the back. "Do you feel that," he says. "I do," says the patient. Then the doctor turns suddenly and lets him have a left hook under the heart. "Can you feel that," he says viciously, as the patient falls over on the sofa in a heap. "Get up," says the doctor, and counts ten. The patient rises. The doctor looks him over very carefully without speaking, and then suddenly fetches him a blow in the stomach that doubles him up speechless. The doctor walks over to the window and reads the morning paper for a while. Presently he turns and begins to mutter more to himself than the patient. "Hum!" he says, "there's a slight anaesthesia of the tympanum." "Is that so?" says the patient, in an agony of fear. "What can I do about it, doctor?" "Well," says the doctor, "I want you to keep very quiet." "You'll have to go to bed and stay there and keep quiet." In reality, of course, the doctor hasn't the least idea what is wrong with the man: but he does know that if he will go to bed and keep quiet, awfully quiet, he'll either get quietly well again or else die a quiet death. Meantime, if the doctor calls every morning and thumps and beats him, he can keep the patient submissive and perhaps force him to confess what is wrong with him.

"What about diet, doctor?" says the patient, completely cowed. The answer to this question varies very much. It depends on how the doctor is feeling and whether it is long since he had a meal himself. If it is late in the morning and the doctor is ravenously hungry, he says: "Oh, eat plenty, don't be afraid of it; eat meat, vegetables, starch, glue, cement, anything you like." But if the doctor has just had lunch and if his breathing is shortcircuited with huckleberry-pie, he says very firmly: "No, I don't want you to eat anything at all; absolutely not a bite; it won't hurt you, a little self-denial in the matter of eating is the best thing in the world.

"And what about drinking?" Again the doctor's answer varies. He may say: "Oh, yes, you might drink a glass of lager now and then, or, if you prefer it, a gin and soda or a whiskey and Apollinaris, and I think before going to bed I'd take a hot Scotch with a couple of lumps of white sugar and bit of lemon-peel in it and a good grating of nutmeg on the top." The doctor says this with real feeling, and his eye glistens with the pure love of his profession. But if, on the other hand, the doctor has spent the night before at a little gathering of medical friends he is very apt to forbid the patient to touch alcohol in any shape, and to dismiss the subject with great severity.

Завдання 1

Прочитати текст, виписати медичні терміни та вивчити їх

Завдання 2

Переказати текст

Завдання 3

Працюючи в парах, скласти діалог "*At the consulting-room*", використовуючи слова та вирази з тексту

POLIOMYELITIS

From "Not Like This"

by Jane Walsh

Mo-Mo went down with a chill, or so I thought.

She came home from school one Monday afternoon complaining about a headache.

Poor pet.

She did look seedy.

I tucked her up in bed and gave her hot drinks. The next morning she seemed quite normal again but I kept her in bed just to be on the safe side.

The day after she was just as bad as ever, and had a very high temperature.

I was scared.

I ran down to the doctor without stopping to put on an outdoor coat.

She was a woman... very vague and droopy. She didn't even appear to hear me.

"Really," she mumbled, "you mothers seem to think I have nothing else to do but run around after your children. Children are always running temperatures. Ah... well... I'll come in and see her later."

She was still mumbling as I raced out of the surgery and back home.

When she came it was eleven o'clock at night.

We had all gone to bed but I was too glad to see her to complain about the time.

She woke Mo-Mo, took her temperature and felt her pulse.

Then she gave me two M. and B. tablets for her and a prescription for more.

I told her Mo-Mo's legs seemed to be affected but she just wasn't listening. She seemed to be too sorry for herself, in a faded vague sort of way.

She gave me a mumbled sort of lecture on running for the doctor whenever there was the slightest thing wrong with a child, and, still mumbling, went home.

She promised to look in again the following morning.

I was relieved. She had found nothing very wrong with my baby, or so I thought.

But the next few days were anxious ones for me.

Mo-Mo was really ill and the doctor never came.

I would have sent for her but I thought she must know best, and that as she had not been again it could not be anything serious.

Poor little pet!

I sat up with her every night, trying to warm her little legs. She had no use in them and they were always cold.

Margaret had to stay away from school to look after her during the day as I had to go to work.

Late on Sunday night the doctor came again.

She was still tired and said she would look at Mo-Mo's legs the following day.

I said no more but decided to call another doctor if she didn't pay her promised visit."

I went off to work the following morning with a very heavy heart. My little one did not seem any better at all. Try as I would, I could not get in front with my work.

I was working part-time for two business ladies, cleaning their flat and giving their invalid brother his mid-day meal.

I was only half-way through my work when the door-bell rang. It was the doctor. She had been to see Mo-Mo and then followed me to work. I could not speak. I just looked at her.

There was nothing vague about her this morning.

"Why didn't you tell me about your little girl's legs?" she demanded.

I looked at her in a puzzled way.

"But I did," I said, "surely you can't have forgotten?"

"Oh, no, you did not. You said it was pneumonia." She fired the statement at me.

"But I can't have done. I don't know now what it is."

Then the doctor blurted out. "That's what I came to tell you. I've sent for an ambulance. Your little girl has infantile paralysis."

I thought I couldn't be hearing properly.

Polio! My little girl with polio!

My legs felt like water.

I sat down on the stairs.

I was still sitting there when the doctor left.

Then I had a dreadful thought. They might take her away before I got home! She would have no one to reassure her.

Hurriedly, I prepared a cold lunch for my old gentleman and put the tray near his bed. I could not leave him stranded, but I did leave the housework. My one thought was to get home.

My poor little pet!

How she cried when I told her she was going away.

She was only five years old.

I had been all her life till then.

I said everything I could think of to comfort her; while inside I slowly turned to ice.

They took her.

I think it was the hardest thing I ever had to bear. All that night I walked the floor. I knew she would be crying for me.

It was six weeks before I saw her again.

I would go two or three times a day and stand outside the hospital gates.

This way I felt a little nearer to her. Then the sister in charge took pity on me. She let me peep at my baby through the glass panels on condition I did not let her see me.

She had been so ill and had fretted so much they were afraid the sight of me might upset her again.

I knew the sight of me would light up that sad little face but I dared not risk it.

It might do her untold harm, fretting for me afterwards.

In the end I was allowed to visit her.

She was on the point of crying, over and over again. But she didn't.

After I left she was sick. The strain of trying not to cry and the fear of not being able to see me again had been too much for her.

Завдання 1

Переказати текст за питаннями

1. How did Mo-Mo look when she came home from school?
2. What did her mother do next morning? Why was she scared?
3. What did the doctor say at her first visit?
4. Did the mother tell anything to the doctor about Mo-Mo's legs?
5. What sort of lecture did the doctor give to Mo-Mo's mother?
6. Did the doctor find anything wrong with the child at first?
7. Why did the mother go to work the following morning with a heavy heart?
8. What did the doctor tell later Mo-Mo's mother about her daughter's legs?
9. What was the hardest thing for the mother to bear?
10. Why did the sister in charge take pity on the mother?
11. How did Mo-Mo behave during her mother's visit?

Завдання 2

Перекласти рідною мовою вирази, подані нижче. Скласти речення, використовуючи їх..

1. to go down with a chill; 2. to look seedy; 3. to be on the safe side; 4. to feel one's pulse; 5. to run a temperature; 6. to look after somebody; 7. to pay a visit; 8 to be sorry for somebody; 9. to take pity on somebody; 10. to be on the point of doing something; 11. to turn to ice.

TYPHOID FEVER

from "The Citadel"

by A. Cronin

When he went up to the doctor's room the curtains were drawn and Edward lay prostrate with a pressure headache, his forehead deeply flushed and furrowed by pain. Though he motioned his visitor to sit with him a little Andrew felt it would be cruelty to thrust this trouble upon him at present.

As he rose to go after remaining seated by the bedside for a few minutes, he had to confine himself to asking: "Doctor Page, if we get an infectious case, what's the best thing to do?"

There was a pause. Page replied with closed eyes, not moving as though the mere act of speech were enough to aggravate his migraine.

"It's always been difficult. We've no hospital, let alone an isolation ward. If you should run into anything very nasty ring up Griffiths at Toniglan. That's fifteen miles down the Valley. He's the District Medical Officer." Another pause, longer than before. "But I'm afraid he's not very helpful."

Reinforced by this information, Andrew hastened down to the hall and rang up Toniglan.

"Hello! Hello! Is that Doctor Griffiths of Toniglan?" He got through at last.

A man's voice answered very guardedly. "Who wants him?"

"This is Manson of Blaenelly. Doctor Page's assistant." Andrew's tone was overpitched. "I've got five cases of typhoid up here. I want Doctor Griffiths to come up immediately."

There was the barest pause, then with a rush the reply came back in a singsong intonation, very Welsh and apologetic. "I'm powerful sorry, Doctor, indeed I am, but Doctor Griffiths has gone to Swansea. Important official business."

"When will he be back?" shouted Manson. The line was bad.

"Indeed, Doctor, I couldn't say for certain."

"But, listen..."

There was a click at the far end. Very quietly the other had rung off. Manson swore out loud with nervous violence. "Damn it, I believe that was Griffiths himself..."

Andrew had been going the whole day long, yet any tiredness he might have felt was lost in a sense of responsibility, the burden of those cases pressing, pressing urgently upon his shoulders. His main feeling was one of relief when, on reaching Chapel Street, he found that Denny was at his lodgings. The landlady showed him in.

Andrew said abruptly: "You were right. It was enteric. I ought to be shot for not recognizing it. I've got five cases. I'm not exactly overjoyed at having to come here. But I don't know the ropes. I rang the M. O., and couldn't get a word out of him. I've come to ask your advice."

When Manson had finished his cigarette, Denny said with a jerk of his head. "Take a look at that, if you like!"

On the table indicated a microscope stood, - a fine Zeiss, and some slides. Andrew focussed a slide, then slid round the oil-immersion and immediately picked up the rod-shaped clusters of the bacteria.

"You've cases too?" Andrew asked with tense interest.

"Four! All in the same area as yours." He paused. "And these bugs come from the well in Glydar Place."

"You see," Denny resumed with that same cold and bitter irony, "paratyphoid is more or less endemic here. But one day soon, very soon, we're going to have a pretty little blaze-up. It's the main sewer that's to blame. It leaks like the devil, and seeps into half the low wells at the bottom of the town. I've hammered at Griffiths about it till I'm tired.

He's afraid to ask the Council for anything in case they dock his wretched salary to pay for it."

"I'm much obliged for the information. You've let me see how I stand. I was worried about the origin, thought I might be dealing with a carrier; but since you've localized it to the well it's a lot simpler. From now on every drop of water in Glydar Place is going to be boiled."

Denny rose also. He growled: "It's Griffiths who ought to be boiled."

Завдання 1

Прочитати текст за допомогою словника та скласти сім питань до нього

Завдання 2

Написати есе на тему: "Many infectious diseases have been stamped out."

Завдання 3

- a) Знайти альтернативне значення слова *bed*.
- b) Відгадати загадку подану нижче:

Riddle

What has a bed but never lies down in it?

(A river)

Proverb

The very best medicine that a family can have in the house is cheerfulness.

Section VI. Supplement 1 (Useful words, word-combinations and phrases)

<i>Questions for obtaining case histories</i>	<i>Питання під час заповнення історії хвороби</i>
Cough	Кашель
Do you have a cough?	У Вас є кашель?
How long have you had a cough?	Як довго він Вас турбує?
Does anything tend to start the cough?	Як Ви думаєте, чим викликаний кашель?
What kind of cough is it?	Які особливості кашлю?
Do you cough anything up?	Ви відкашлюєте?
Is your cough getting worse or better?	Чи стає кашель сильнішим чи слабшим?
Does the coughing come in bouts?	Чи є напади кашлю?
Sputum	Мокротиння
Do you cough up any phlegm?	Ви відхаркуєте слиз?
What color is it?	Який колір слизу?
What does it taste like?	Який його смак?
What does it smell like?	Який його запах?
Haemoptysis	Кровохаркання
Have you coughed up any blood?	Ви відхаркуєте кров?
Have you noticed any red streaks in your sputum?	Ви помітили червоні прожилки в мокротинні?
Dyspnoea	Задихка
Do you become short of breath easily?	Як швидко виникає задихка?
Do you get short of breath when you climb stairs? If so, how many stairs can you climb before you get short of breath?	Чи виникає задихка при підйомі на сходи? Якщо так, то скільки сходинок Ви можете пройти без задихки?
Do you get short of breath when you walk to the shops? If so, how far can you walk before you become short of breath?	Чи виникає задихка, коли Ви йдете в магазин? Якщо так, то як далеко Ви можете йти пішки до її настання?
Do you get short of breath when you lie flat?	Чи утруднене дихання в положенні лежачи?
How many pillows do you sleep on at night?	Скільки подушок Ви підкладаєте на ніч під голову?
Do you become short of breath if you slip off the pillows?	Чи є утруднене дихання, якщо ви спите без подушки?
Do you ever wake up at night short of breath?	Чи прокидаєтеся Ви вночі від задихки?
Wheeze	Хрипле дихання
Do you ever wheeze?	Чи виникає у вас хрипле дихання?
Does anything in particular make you wheeze such as cold weather, exercise or an allergy to pollen or house dust mite?	Коли виникає хрипке дихання: при холодній погоді, при фізичному навантаженні або при алергії на квітковий пилок або на домашній пил?
Chest pain/ abdominal pain	Біль у грудях, біль у животі
Do you have a pain in your chest?	Чи є будь-які болі в грудях?
Where exactly is the pain?	Де саме вони виникають?

When did the pain start?	Коли вони починаються?
Has the site of the pain moved with time?	З часом змінюється місце болю?
How long have you had the pain?	Як довго триває біль?
Does the pain go anywhere else?	Чи існують будь-які додаткові болі в іншому місці?
Do you feel the pain near to the skin or deep inside?	Чи відчуваєте Ви біль близько під шкірою або глибоко всередині?
How would you describe the pain?	Як би ви описали біль?
Is it dull or sharp?	Біль тупий чи гострий?
Is it "burning" or "stabbing" or "gripping"?	Біль «пекучий», «ріжучий» або «стискаючий»?
How severe is the pain?	Сильний біль?
Does the pain force you to lie still or to roll around?	Чи змушує Вас біль лежати спокійно або крутитися?
Does the pain prevent you from going to sleep?	Чи заважає біль засинати?
Did the pain start suddenly or gradually?	Біль починається раптово або поступово?
Is the pain getting worse or better or not changing in severity?	Чи стає біль сильнішим, слабшим або не змінюється?
Does anything in particular start the pain?	Чи є якась причина, що викликає біль?
Does anything make the pain worse, such as breathing in or coughing?	Чи посилюється біль при диханні або при кашлі?
Does anything relieve the pain, such as drugs, exercise, rest, eating food or changing position?	Чи знімається біль ліками, фізичними вправами, відпочинком, прийомом їжі або зміною положення тіла?
Have you ever had a similar pain before?	Ви коли-небудь мали подібний біль раніше?
What do you think has caused the pain?	Що Ви думаєте про причини болю?
Palpitations	Серцебиття
Do you ever feel a sudden fluttering" or "thumping" of your heart in your chest? If so, how often do you get these palpitations?	Чи відчуваєте Ви іноді раптове «тріпотіння» або «биття» серця в грудях? Якщо так, то як часто?
Ankle edema	Набряк в області гомілкостопних суглобів
Are your ankles swollen?	Чи бувають набряки в області кісточок?
If so, how long have they been swollen?	Якщо так, то як довго вони тримаються?
Does the swelling go down when you elevate your legs?	Чи зникає набряк, якщо підняти ноги вгору?
Peripheral vascular symptoms	Зміни периферичних судин
Do you get pain in your calf muscles on walking?	Чи бувають болі в литкових м'язах при ходьбі?
How far can you walk before the pain starts?	Яку відстань Ви можете пройти до настання болю?
Is the pain so bad that you have to stop walking?	Чи настільки сильні ці болі, що Ви змушені припинити ходьбу?
How long does it take for the pain to wear off?	Як довго триває біль?
Is there any pain in your limbs at rest?	Чи є біль в ногах у спокої?
Do the toes of your feet easily become cold or	Чи буває, що пальці ніг раптово холонуть і

discoloured?	бліднуть?
Do you experience any tingling or numbness of your legs?	Чи виникає відчуття поколювання або оніміння в ногах?
Appetite	Апетит
How is your appetite?	Який у Вас апетит?
Is your appetite poor because you don't want to eat, or because eating causes pain?	Якщо апетит поганий, то пов'язано це з тим, що Ви не хочете їсти або прийом їжі викликає біль?
Diet	Дієта
What is your favorite food?	Яка їжа Вам більше подобається?
Do you eat many fruits and vegetables?	Чи багато ви їсте фруктів і овочів?
Is there much fiber in your diet?	Чи багато Ви вживаєте в їжу клітковини?
Do fatty foods agree with you?	Чи добре Ви переносите жирну їжу?
Weight	Вага тіла
Has your weight changed recently?	Чи змінилася Ваша вага за останній час?
Do your clothes seem tighter or looser?	Чи не став вільний або тісний Ваш одяг?
Swallowing	Ковтання
Do you have any difficulty swallowing?	Чи бувають труднощі при ковтанні?
If so, are you able to swallow solid food?	Якщо так, то чи можете Ви ковтати тверду їжу?
Does the food appear to stick at any particular level in your gullet?	Чи не здається Вам, що їжа застрягає на якомусь певному рівні в горлі?
Are you able to swallow liquids?	Чи можете Ви ковтати рідину?
Is swallowing painful?	Чи не болісне це ковтання?
Regurgitation	Відрижка (регургітація)
Does your mouth ever suddenly fill with an acid-tasting fluid?	Чи не заповнюється Ваш рот кислою рідиною раптово?
Do you ever regurgitate food?	Чи відригуюте Ви їжу?
Does bending over or straining precipitate the regurgitation?	Чи не прискорюють відрижку різкі нахили або напруга?
Do you belch frequently?	Чи часто буває відрижка?
Heartburn	Печія
Do you suffer from a burning sensation in the centre of your chest?	Чи страждаєте Ви від відчуття печії в центрі грудей?
Does stooping or lying flat initiate the burning sensation?	Чи не викликають відчуття печії нахили тулуба або положення лежачи?
Vomiting	Блювота
Have you vomited?	Бувала у Вас блювота?
Is the vomitus recognizable food from previous meals, digested food, bile-stained fluid or just clear acid-tasting fluid?	Що включають у себе блювотні маси: помітні фрагменти їжі від попереднього прийому їжі, переварену їжу, рідину, забарвлену жовцю або безбарвною рідиною кислого смаку?
Is the vomiting related to meals?	Чи пов'язана блювота з прийомом їжі?
Is the vomiting preceded by another symptom such as nausea, abdominal pain, headache or "giddiness"?	Передують блювоті інші симптоми: нудота, болі в животі, головний біль або запаморочення?
Do you feel better after vomiting?	Чи краще Ви себе почуваєте після блювоти?

Haematemesis	Кривава блювота
Have you ever vomited blood?	Чи помічали Ви коли-небудь кров в блювотних масах?
Have you vomited coffee-ground material?	Бувала у Вас блювота як кавова гуща?

<i>Past medical history</i>	<i>Історія хвороби</i>
Have you ever had an operation before? If so, what was the operation? Where was the operation performed? Who performed it? When?	Чи були Ви раніше оперовані? Якщо так, то з приводу чого була операція, де вона виконувалася, хто її робив, коли?
Have you ever suffered an adverse reaction to an anaesthetic?	Чи не було негативною реакції на анестетики?
Have you ever had a blood transfusion?	Чи не переливали Вам кров?
Have you suffered from any serious illnesses such as tuberculosis, diabetes, rheumatic fever, jaundice, asthma, epilepsy or venereal diseases?	Чи не страждали Ви будь-яким серйозним захворюванням: туберкульоз, діабет, ревматичний артрит, жовтяницею, астмою, епілепсією або венеричними хворобами?
Do you suffer from any bleeding tendencies?	Чи немає у Вас тенденції до кровотеч?
Have you ever had a deep venous thrombosis?	Чи не було у Вас глибокого тромбозу вен?
Have you ever had a heart attack?	Чи не було у Вас коли-небудь серцевого нападу?
Do you suffer from angina or high blood pressure?	Чи не страждаєте Ви стенокардією або підвищеним кров'яним тиском?
Drugs	Ліки
Are you receiving any tablets, medicines or injections at the moment?	Чи приймаєте Ви зараз якісь таблетки, ліки або ін'єкції?
Are you on steroids, diuretics, anti-hypertensives, insulin or the contraceptive pill? If so what dose are you on?	Чи приймаєте Ви гормони, сечогінні, протигіпертонічні ліки, інсулін або протизаплідні таблетки? Якщо так, то в яких дозах?
When do you take the tablets?	Коли Ви приймаєте таблетки?
Allergies	Алергії
Are you allergic to anything?	Є у Вас алергія на що-небудь?
Are you sensitive to any drugs or to elastoplast?	Ви чутливі до будь-яких ліків або до еластопласту?
Immunisation	Імунізація
Has your child been immunised against diphtheria, tetanus, poliomyelitis, whooping cough and tuberculosis?	Чи імунізована Ваша дитина проти дифтерії, правця, поліомієліту, кашлюку і туберкульозу?
Family history	Сімейний анамнез
Have you any children? Have you any brothers or sisters?	Є у Вас діти, брати, сестри?
Are your parents still alive? If so, how old are they?	Чи живі Ваші батьки? Якщо так, то скільки їм років?
What did your parents die of?	Чому померли Ваші батьки?
Does any other member of your family have a	Чи хворіє хто-небудь у Вашій родині

similar condition?	таким же захворюванням?
Does any condition run in your family?	Чи є у Вашій родині спадкове захворювання?
Are you parents related?	Чи не перебувають Ваші батьки в родинних стосунках між собою?
Social history	Соціальні умови
What is your job? Is your job hazardous in any way?	Ким ви працюєте? Ваша робота небезпечна або шкідлива?
Do you come in contact with dust and chemicals?	Чи є у вас контакти з пилом або хімічними речовинами?
What are your leisure activities?	Чим Ви займаєтеся на відпочинку?
Have you been abroad recently?	Чи були Ви останнім часом за кордоном?
What type of house do you live in?	У якому будинку ви живете?
Does it have steep stairs?	Чи круті в ньому сходи?
It is warm during the winter?	Чи тепло в ньому взимку?
Is it draughty?	Чи є в ньому протяги?
Habits	Шкідливі звички
Do you smoke? Cigarettes, cigars or a pipe? How many cigarettes do you smoke per day? When did you start smoking?	Ви палите? Сигарети, сигари або трубку? Скільки сигарет ви викурюєте за день? Коли Ви почали палити?
Do you drink alcohol? How much alcohol do you drink, on average, per week? What type of alcohol do you drink?	Ви п'єте? Скільки Ви випиваєте в середньому за тиждень? Які алкогольні напої ви п'єте?

<i>Personal history</i>	<i>Історія особистості</i>
<u>(a) Infancy, Childhood and Adolescence.</u>	<u>а) Дитинство і юність</u>
Where were you born?	Де Ви народилися?
Were there any problems associated with your birth?	Були проблеми, пов'язані з Вашим народженням?
Do you think that you were a wanted child?	Як Ви думаєте, Ви були бажаною дитиною?
What are your earliest memories?	Що Ви пам'ятаєте з самого раннього дитинства?
Did you achieve your developmental milestones at a normal age?	Ви розвивалися нормально відповідно до віку?
What was the atmosphere like at home?	Яка була атмосфера вдома?
What sort of upbringing did you have?	Яке виховання Ви отримали?
Were you ever ill-treated as a child?	Чи відчували Ви в дитинстві погане ставлення до Вас?
Were you ever separated from your parents?	Чи жили Ви коли-небудь окремо від батьків?
Did you have any major problems as a teenager?	Чи були серйозні проблеми в підлітковому віці?
Did you have any friends at this time?	Чи були у Вас у цей період друзі?
Were you rebellious towards your parents?	Ви конфліктували з батьками?
How old were you when you left home?	У якому віці Ви покинули рідну домівку?
<u>(b) Education</u>	<u>б) Освіта</u>
How old were you when you started school?	В якому віці Ви пішли в школу?

What types of school did you attend?	В яких школах Ви вчилися?
Did you have any specific difficulties at school e. g. in reading or arithmetic?	Чи відчували Ви особливі труднощі в школі, наприклад, у читанні або в арифметиці?
Were you bullied or teased much?	Вас в дитинстві часто залякували або дразнили?
How did you get on with the teachers?	Які були у Вас стосунки з учителями?
Did you ever play truant?	Ви прогулювали уроки?
What qualifications did you get at school?	Які характеристики Ви отримали в школі?
How did you cope with exams?	Як Ви впоралися з іспитами?
<u>(c) Occupation</u>	<u>в) Робота</u>
How old were you when you started work?	В якому віці Ви почали працювати?
Did you do an apprenticeship or receive some training after you left school?	Ви навчалися своєї професії на робочому місці або вчилися на курсах після закінчення школи?
What type of jobs have you had in the past?	Ким і де Ви працювали в минулому?
Have you ever been unemployed?	Чи були Ви коли-небудь безробітним?
Have you ever been in the Armed Forces?	Ви служили в армії?
<u>(d) Marital</u>	<u>г) Шлюбні стосунки</u>
How old were you when you got married?	В якому віці Ви одружилися (вийшли заміж)?
How long were you engaged for?	Скільки часу Ви були заручені?
Did you have any previous engagements?	Чи були у Вас заручини до цього?
Did your parents approve of the marriage?	Схвалили Ваш шлюб батьки?
How would you describe your marriage?	Як би Ви описали Ваш шлюб?
Have either you or your partner had any extramarital affairs?	Чи були у Вас або у Вашого партнера позашлюбні зв'язки?
Do you feel appreciated or undervalued at home?	Вдома Ви відчуваєте себе оціненим по достоїнству або Вас недооцінюють?
<u>(e) Children</u>	<u>д). Діти</u>
How many children do you have?	Скільки у вас дітей?
Can you give me the age and names of the children?	Назвіть, будь ласка, їх імена і вік.
Do any of your children cause you a lot of problems?	Хто-небудь з Ваших дітей завдає Вам багато клопоту?
Do you spend as much time with them as you would like?	Чи проводите Ви з дітьми стільки часу, скільки б Вам хотілося?
<u>(f) Forensic</u>	<u>е). Протизаконні дії</u>
Have you ever experimented with recreational drugs?	Чи приймали Ви коли-небудь наркотики?
Have you ever been in trouble with the police?	Чи були у Вас неприємності з поліцією?
Have you any previous convictions?	Чи є у Вас судимості?
Have you ever been put on probation or served a prison sentence?	Чи були Ви засуджені умовно або відбували покарання у в'язниці?
Have you any court case pending?	Чи розглядається зараз якась Ваша справа в суді?
Present circumstances	Сучасний стан справ
What sort of house are you living in at the moment?	Які Ваші житлові умови в даний час?
Are there any problems with your accommodation?	Чи є у Вас якісь житлові проблеми?

Who do you live with? Are you on good terms with them?	З ким ви живете? Чи в хороших Ви з ними стосунках?
Are you working at the present time? How satisfying do you find your job?	Ви зараз працюєте? Ви задоволені своєю роботою?
Do you have difficulty unwinding after work?	Чи важко Вам розслабитися після роботи?
How would you describe your financial position?	Як би Ви описали Ваше сьогоденне фінансове становище?
Do you have any big debts to pay off?	Чи є у Вас великі борги?
Do you have many friends?	Чи багато у Вас друзів?
Do you partake in any leisure activities?	Чи займаєтесь Ви чимось на дозвіллі?
On average, how much alcohol do you drink per week?	Скільки в середньому Ви випиваєте алкоголю на тиждень?
Are you currently taking any illicit drugs?	Чи приймаєте Ви зараз будь-які наркотики?
What are your plans for the future?	Які Ваші плани на майбутнє?
Describe a typical day in your life.	Опишіть Ваш звичайний день.

<i>A patient's personal details</i>	<i>Індивідуальні особливості пацієнта</i>
Name	Прізвище
Age	Вік
Sex	Стать
Date of Birth	Дата народження
Occupation	Професія
Home Address	Домашня адреса
Identification Number (Unit Number)	Номер (амбулаторної картки, історії хвороби)
Next of Kin	Найближчі родичі
Religion: Beliefs and Practices	Релігія: віра і релігійні сповідання
Ethnic origin/race	Етнічна група / раса:
(a) Mongoloid	а) Монголоїдної
(b) Negroid	б) Негроїдної
(c) Caucasian	в) Європейської
Marital Status	Сімейний стан
(a) Single	а) Неодружений
(b) Married	б) Одружений (заміжня)
(c) Divorced	в) Розлучений
(d) Separated	г) Проживає окремо від чоловіка (дружини)
(e) Widow	д) Вдова
(f) Widower	е) Вдівець
General Practitioner	Лікуючий або сімейний лікар
Telephone Number	Телефон
Belongings	Речі (хворого)
Valuables	Цінності (хворого)
Home Circumstances	Сімейні обставини
Special Needs	Особливі відмітки

<i>Family history</i>	<i>Сімейний анамнез</i>
Are both your parents alive?	Чи живі Ваші батьки?
How old are they? Are they well? Are they still working?	Скільки їм років? Чи здорові вони? Чи вони ще працюють?
How would you describe your mother?	Як би Ви описали свою матір?
What sort of person is your father?	Що за людина Ваш батько?
Do you have any brothers or sisters? Can you give me the age and names of your siblings?	Чи є у Вас рідні брати і сестри? Назвіть, будь ласка, їх імена і вік.
Are you on good terms with your family?	Чи хороші стосунки у Вашій родині?
Have any of your relatives suffered from a mental illness?	Будь-хто з Ваших родичів страждав якимось психічним захворюванням?
Have there been any recent deaths in your family?	Вмирав хто-небудь у Вашій родині останнім часом?

<i>Common symptoms</i>	<i>Загальні симптоми</i>
Constitutional	Органічні
Hunger	Голод
Thirst	Жага
Anorexia (loss of appetite)	Анорексія (втрата апетиту)
Hyperphagia	Підвищений апетит
Loss of weight	Втрата ваги
Weight gain	Збільшення ваги
Polydipsia	Посилена спрага
Nausea	Нудота
Queasiness	Нездужання
Malaise	Дискомфорт
Tiredness	Втома
Lethargy	Летаргія
Lassitude	Апатія; стомлення
Asthenia	Астенія
Fatigue	Втома
Diminished stamina	Знижена стійкість (витривалість)
Languor	Стомлення
General debility	Загальна слабкість
Prostration	Прострація
A fever	Лихоманка
A rigor	Озноб (гарячка)
A chilly sensation	Мерзлякуватість
A hot flush	Припливи
Night sweats	Нічне потовиділення
Intolerance for heat or cold	Непереносимість спеки або холоду
Excessive sweating	Рясне потовиділення
An itch	Сверблячка
Pruritus (severe itching of the skin)	Сильний свербіж шкіри
Respiratory	Дихальна система
Dry cough	Сухий кашель

Cough productive of sputum	Кашель з мокротою
Haemoptysis	Кровохаркання
Hiccup	Гикавка
Shortness of breath	Задишка
Wheeze	Стридор (свистяче дихання)
Cardiovascular	Серцево-судинна система
Chest pain	Болі в грудях
(a) retrosternal	(А) за грудиною
(b) girdle	(Б) оперізують
(c) pleuritic	(В) плевритичні
Ankle swelling	Набрякання суглобів
Palpitations	Трипотіння
Dyspnoea on exertion (Exertional dyspnoea) Orthopnoea	Задуха при фізичному навантаженні Вимушене положення сидячи для полегшення дихання при задусі
Paroxysmal nocturnal dyspnoea	Нічна пароксизмальна задуха
Intermittent claudication	Кульгавість
Nocturnal muscle cramps	Нічні м'язові спазми
Gastrointestinal	Травна система
Dysphagia	Порушення ковтання
Odynophagia	Біль при ковтанні
Waterbrash	Печія
Regurgitation	Регургітація (зригування)
Belching (eructation)	Відрижка
Heartburn (pyrosis)	Печія
Vomiting	Блювота
Haematemesis	Кривава блювота
Indigestion	Диспепсія, розлад травлення
Chronic	Хронічні розлади
Abdominal distension	Розтягнення живота
Abdominal bloating	Вздуття живота
Change of bowel habit	Зміна функції кишківника
Constipation	Закреп
Diarrhoea	Діарея
Flatulence	Метеоризм
Rectal bleeding	Кровотеча з прямої кишки
Melaena	Кров в калі
Steatorrhoea	Стреаторея
Tenesmus	Тенізми
Faecal incontinence	Нетримання калу
Faecal soiling	Фекальні забруднення
Pruritus ani	Анальний свербіж
Urogenital	Сечостатева система
Haematuria	Гематурія
Initial	На початку сечовипускання
Total	Тотальна
Terminal	В кінці сечовипускання
Microscopic	Мікрогематурія
Increased urinary frequency	Часте сечовипускання
Strangury	Біль при сечовипусканні

Scalding	Жага під час сечовипусканні
Hesitancy	Переривчасте сечовипускання
Poor urinary stream	Слабка струя сечі
Terminal dribbling	Виділення крапель мочі в кінці сечовипускання
Ballooning of the prepuce	Набряк крайньої плоті
Polyuria	Поліурія
Nocturia	Нічна поліурія
Pneumaturia	Пневматурія
Urinary incontinence	Нетримання сечі
Urethral discharge	Вилілення з сечоспускового каналу
Genital sore	Запалення геніталій
Haematospermia	Гематоспермія
Impotence	Імпотенція
Premature ejaculation	Передчасна еякуляція
Ejaculatory failure	Розлад еякуляції
Gynaecological	Гінекологічні розлади
Amenorrhoea	Аменорея
Dysmenorrhoea	Дисменорея
Dysfunctional uterine bleeding	Дизфункціональна маткова кровотеча
Irregular menses	Нерегулярні менструації
Inter-menstrual bleeding	Міжменструальна кровотеча
Menorrhagia	Менорагія
Infertility	Безпліддя
Dyspareunia	Диспареурія
Sexual dysfunction	Сексуальний розлад
Neurological	Неврологічні розлади
Headache	Головний біль
Feeling of tension in the head	Почуття напруги в голові
Lightheadedness	Запаморочення
Epileptic fit	Епілептичний напад
Convulsion	Судоми
Seizure	Напад, пароксизм
Aura	Аура
Faint	Зомління
Syncope	Синкопе
'Drop attack'	Раптова втрата свідомості при шийному остеохондрозі
Blackout	Потемніння в очах
Anaesthesia	Анестезія
Paraesthesia (Tingling)	Парестезія
Hypoaesthesia (Numbness)	Гіпестезія
Hyperaesthesia	Гіперестезія
Myalgia	Міалгія
Muscle weakness	М'язова слабкість
Paralysis	Параліч
Unsteadiness	Нестійкість
Giddiness	Запаморочення
Imbalance	Порушення рівноваги

Clumsiness	Незграбність
Ataxia	Атаксія (<i>розлад координації рухів</i>)
Vertigo	Запаморочення
Rotatory	Системне
Linear	Лінарне
A memory lapse	Розлад пам'яті
Amnesia	Амнезія
Visual impairment	Погіршення зору
Visual failure	Втрата зору
Blindness	Сліпота
Blurred vision	Затуманений зір
Diplopia	Диплопія (<i>двоїння в очах</i>)
Amblyopia	Амбліопія (<i>ослаблення зору</i>)
Photophobia	Світлобоязнь
Teichopsia	Тейхопсія (<i>поява хвиль перед очима</i>)
Visual field loss	Звуження поля зору
'Flashing lights'	Блимання світла перед очима
Locomotor	Розлад опорно-рухового апарату
Arthralgia	Артралгія
Low back pain	Біль в попереку
Stiffness	Тугорухомість суглобів
Limp	Кульгавість
Immobility	Нерухомість
Joint instability	Нестійкий суглоб
Ear, nose and throat	ЛОР розлади
Hearing impairment	Погіршення слуху
Deafness	Глухота
Auditory inattention	Погане сприйняття на слух
Paracusis	Змінене сприйняття звуків
Tinnitus	Шум у вухах
Otalgia (earache)	Оталгія (біль в вухах)
Otorrhoea	Оторея (<i>гнійне виділення з барабанної порожнини</i>)
Dysequilibrium	Порушення рівноваги
Epistaxis	Епістаксіс (<i>носова кровотеча</i>)
Nasal obstruction	Закупорка носових ходів
Nasal stuffiness	Закладений ніс
Nasal catarrh	Катаральний риніт
Post-nasal drip	Крапельне вливання в носоглотку
Rhinorrhoea	Ринорея
Sneezing attacks	Пристипи чхання
Nasal crusting	Корки в носі
Anosmia	Аносмія (<i>відсутність нюху</i>)
Facial pain	Лицеві болі
Feeling of facial fullness	Відчуття набряку лица
Lacrimation	Сльозотеча
Sore throat	Фарингіт
Hoarseness of the voice	Охриплість голосу
Dysphonia	Дисфонія

Stridor	Стрідор (<i>свистяче дихання</i>)
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<i>Instructions for the clinical examination</i>	<i>Звернення до хворих при клінічному обстеженні</i>
Please take all your clothes off except your pants (and bra for women) and lie on the couch. You can cover yourself with a blanket.	Будь ласка, роздягніться до трусів (і бюстгальтера у жінок) і лягайте на кушетку. Можете накритися ковдрою.
I would like to take your temperature with this thermometer.	Я хочу виміряти Вам температуру цим термометром.
Using this auriscope I am going to look down your ears.	За допомогою цього вушного дзеркала я огляну Ваші вуха.
I would now like to feel your neck from behind. Swallow please.	Я хотів би тепер промацати Вашу шию, стоячи позаду. Зробіть ковтальний рух, будь ласка.
Using this spatula and torch I am now going to look at the back of your throat. Please open your mouth wide.	Зараз за допомогою ложечки і освітлювача я збираюся оглянути задню поверхню глотки. Будь ласка, відкрийте рот широко.
Breasts	Молочні залози
I would now like to palpate your breasts to detect any lumps. Please take off your bra.	Тепер я б хотів пропальпувати Ваші груди, щоб визначити, чи є ущільнення. Зніміть, будь ласка, бюстгальтер.
Rest both hands on your lap.	Покладіть обидві руки на коліна.
Now press both hands firmly on your hips.	Тепер міцно притисніть руки до стегон.
Please raise both arms above your head.	Підніміть руки над головою.
Now lean forward to that your breasts become pendulous.	Тепер нахиліться вперед, щоб груди звисали.
Now please place your right forearm on my right forearm and I will feel under your right armpit.	Тепер, будь ласка, покладіть Вашу праву руку на моє праве плече, і я обстежу Вашу праву пахву.
Cardiovascular system (c.v.s.)	Серцево-судинна система
Pulse	Пульс
Let me take your hand and I will feel your pulse.	Дайте мені Вашу руку, і я промацаю пульс.
Blood Pressure (B.P.)	Кров'яний тиск
I will now take your blood pressure with this sphygmomanometer. Please roll up your sleeve.	Зараз я вимірюю Вам кров'яний тиск сфігмоманометром. Будь ласка, закатайте рукав.
Jugular Venous Pressure (J.V.P.)	Тиск в яремній вені
Can you please sit up with some pillows behind you so that you are reclining at 45 degrees?	Ви можете сісти і підкласти подушки так, щоб Ваше тіло було нахилене на 45 градусів?
Heart	Серце
I am now going to listen to your heart with my stethoscope.	Зараз я вислухаю Ваше серце стетоскопом.
Please lean forward and hold your breath after breathing out fully.	Будь ласка, нахиліться вперед і затримайте дихання після глибокого видиху.
Now please turn to your left side while I listen to your heart.	Тепер поверніться на лівий бік, і я вислухаю Ваше серце.

Peripheral Circulation	Периферичний кровообіг
I am now going to feel the pulses in your legs.	Зараз я промацаю пульс у Вас в ногах.
I shall now raise your straight leg to see if it changes colour.	Я підніму зараз Вашу випрямлену ногу, щоб побачити, чи не змінився її колір.
Now please sit up and hang your legs down over the side of the couch.	Тепер, будь ласка, сядьте прямо і звісьте ноги вниз з кушетки.
Respiratory system (r.s.)	Дихальна система
Chest Expansion	Розширення грудної клітини
After I have spread my hands around your chest please take a deep breath.	Тепер я охоплю руками Вашу грудну клітку, а Ви зробіть глибокий вдих.
Percussion	Перкусія
I shall now percuss over your lung fields.	Зараз я буду вистукувати Ваші легені.
Auscultation	Аускультация
Please breathe deeply in and out through your mouth. Now say "one, one, one" while I listen to your chest (doctor listens to conducted voice sounds).	Будь ласка, дихайте глибоко відкритим ротом. Тепер говоріть «раз, раз, раз», поки я буду вислуховувати Вашу грудну клітку (лікар аналізує голосові шуми)
Alimentary system (a.s.)	Травна система
Abdomen	Черевна порожнина
Please lie flat with your head resting on the low pillow. Rest your arms by your side and relax, so that your back sinks into the couch.	Будь ласка, ляжте на спину і покладіть голову на низьку подушку. Витягніть руки вздовж тіла і розслабтеся, так щоб Ваша спина опустилася на кушетку.
I am now going to feel your "tummy". If it hurts when I touch you please tell me.	Тепер я обстежую Ваш «животик». Якщо буде боляче, скажіть мені.
Now cough (doctor puts his examining hand over each hernial orifices in turn).	Тепер прокашляйтесь (лікар обстежує по черзі зовнішні гризові отвори).
Rectal Examination (P.R.)	Дослідження прямої кишки
I must now examine your back passage. Please turn onto your left side so that your bottom is situated over the edge of the couch. Now bend your knees up towards your "tummy".	Я повинен обстежити Ваш задній прохід. Будь ласка, ляжте на лівий бік, так щоб сідниці були поза кушеткою і пригніть коліна до живота.
The examination will be a little uncomfortable but not painful.	Обстеження буде трохи неприємним, але безболісним.
I will slowly advance my finger.	Я буду вводити палець повільно.
Please relax by breathing deeply.	Будь ласка, розслабтеся і глибоко дихайте.

Motor system	Рухова система
Tone and power in upper limbs	Тонус і сила м'язів верхніх кінцівок
Please stand up and hold your arms horizontally in front of you with the palms facing downwards and fingers spread apart.	Будь ласка, встаньте і витягніть руки перед собою, долонями вниз, пальці розведіть.
Now with your arms still outstretched make rapid movements as though you were playing the piano.	Тепер швидко поворушіть пальцями з витягнутими руками, ніби Ви граєте на піаніно.

Now place your palms uppermost and close your eyes for a short time.	Тепер підніміть руки, якомога вище вгору, і заплющте на короткий час очі.
Please sit down. I would like to shake each hand in turn and then move each forearm while I support your elbow.	Будь ласка, сядьте. Я б хотів потиснути Вам кожену руку по черзі і посовати передпліччя, одночасно підтримуючи Вас за лікті.
Now move your arms outwards in line with your body to 90 degrees and then flex your elbows. Please resist my attempts to push your arms downwards.	Тепер розведіть руки в бік під кутом в 90 ° до тіла і зігніть їх в ліктях. Чиніть опір моїм спробам розігнути Ваші руки.
Now put your arms by your side. Try to bend your elbow while I resist you. Now try to straighten your elbow while I push against you.	Опустіть руки по швах. Спробуйте зігнути руку в лікті, а я буду протидіяти цьому. Тепер випрямляйте руку, долаючи мій опір.
Tone and power in lower limbs	Тонус і сила м'язів нижніх кінцівок
Now lie on the couch with your legs relaxed. I am going to gently grasp your knee and rotate your leg to and fro about the hip. I shall now place my hand 5 centimetres away from the sole of your feet. Please tap the sole against my hand as fast as you can.	Лягайте на кушетку і розслабте ноги. Я обережно візьмуся за Ваше коліно і буду повертати Вашу ногу навколо кульшового суглоба. Тепер я покладу свою руку в 5 сантиметрах від підшви Вашої стопи. Будь ласка, поплескайте швидко підшвою стопи по моїй руці.
Please sit up. I would like you to raise your knee and keep it raised while I press downwards on your thigh.	Сідайте. Я прошу Вас підняти коліно і тримати його так, поки я буду тиснути вниз на стегно.
Now straighten your knee and prevent me from bending it. Now flex your knee and prevent me from straightening it.	Тепер випряміть ноги в колінах і не давайте мені згинати їх. А тепер зігніть ноги в колінах і не давайте мені їх випрямити.
Now lie down again with your heels resting on the couch.	Лягайте знову, п'яти притисніть до кушетки.
Try to move your foot upwards while I press against it. Now try to move your foot downwards while I resist you.	Спробуйте підняти ноги, опираючись моему тиску на них. Тепер спробуйте опустити ноги, долаючи мій опір.
Co-ordination	Координація
Touch your nose with the tip of your index finger and then touch my finger. Now keep going back and forth between your nose and my finger. Continue to do this while I move my finger from side to side.	Доторкніться кінчиком Вашого вказівного пальця до свого носа, а тепер доторкніться до мого пальця. Продовжуйте рухати Ваш палець вперед і назад від свого носа до мого пальця. Не переривайтеся, а я буду пересувати свій палець з одного боку в інший.
Can you quickly slap the palm of my hand with the front and back of your own hand? Now place your right heel onto your left knee and slide it down the front of your shin to the ankle and back again.	Чи можете Ви швидко поплескати по моїй долоні лицьовою і тильною сторонами своєї долоні? Тепер покладіть Вашу праву п'яту на своє ліве коліно і проведіть нею вниз по передній стороні ноги до гомілки і щиколотки і потім назад.

Reflexes	Рефлекси
Try to relax and let your muscles go slack. I shall now test your reflexes with this tendon hammer.	Намагайтеся розслабитися і не напружуйте м'язи. Я перевірю Ваші рефлекси цим молоточком.

Common findings on examination	Загальні дані при обстеженні
General	Основні
Skin pallor	Бліда шкіра
Jaundice: mild/deep	Жовтяниця: слабка / виражена
Cyanosis	Ціаноз
(a) peripheral	а) периферичний
(b) central	б) центральний
Clubbing of fingers	«Барабанні палички», потовщення кінцевих фаланг пальців
Ankle oedema	Набряк надп'яtkово-гомiлкових суглобів
Dependent oedema (gravitational oedema)	Ортостатический набряк
Generalised oedema	Загальна набряклість
Lymphadenopathy	Лімфаденопатія
Muscle wasting	М'язова слабкість
Obesity	Ожиріння
Palmar erythema	Еритема долонь
Leuconychia	Лейконіхія
Apyrexia	Апірексія
Hypothermia	Гіпотермія
Alopecia	Алопеція
Hirsutism	Гірсутизм
Exophthalmos	Екзофтальм
Lid lag	Незмикання століття
Goiter	Зоб
(a) diffuse	а) дифузний
(b) nodular	б) вузловий
Gynaecomastia	Гінекомастія
Halitosis	Неприємний запах з рота
Foetor	Сморід
Ozaena	Озена
Purpura	Пурпура
Petechiae	Петехії
Splinter haemorrhages of the... nail beds	Точкові крововиливи в... Нігтьові ложа
Spider telangiectasia	Павукоподібна телеангіектазія
Skin	Шкіра
a macule	Пляма
a papule	Папула
a nodule	Вузлик
a scale	Лусочка
a crust	Струп
a pustule	Пустула
a spot	Пляма
a cyst	Кіста
a blister	пухир; міхур

a vesicle	везикула, бульбашка
a bulla	пухир; міхур
a fissure	Тріщина
an erosion	Ерозія
an excoriation	Екскоріація
a bleb	Пухир
a blemish	Пляма
a pigmented patch	пігментна пляма
a marking	(від) мітка
an eruption	висип, висипання
a decubitus ulcer	Пролежень
a cluster of lesions	поєднання хвороб
a bunch of lesions	«букет» хвороб
Erythema	Еритема
skin irritation	подроздрення шкіри
skin desquamation (skin scaling)	лущення шкіри; десквамація шкіри
peeling of the skin	лущення шкіри
dimpling of the skin	оспинки на шкірі
cutaneous striae	смужки або рубці на шкірі
Cardiovascular	Серцево-судинна система
a tachycardia	Тахікардія
a bradycardia	Брадикардія
triple rhythm	потрійний ритм
gallop rhythm	ритм галопу
systemic hypertension	системна гіпертензія
systemic hypotension	системна гіпотензія
a thrill	1. вібрація грудної клітки (при порозі серця) 2. нервові тремтіння
a heave	1. вибухання (передсердя) 2. позив на блювоту
a murmur	серцевий шум
a bruit	шум, звук при аускультативній
a click	клацання (аускультативний феномен)
pericardial rub	шум тертя перикарда
venous hum	венозний шум, шум дзиги
Respiratory	Дихальна система
Apnoea	апноє (зупинка дихання)
hypoventilation	Гіповентиляція
hyperventilation	Гіпервентиляція
pectus carinatum ('pigeon chest')	кілевидна грудна клітка, «курячі груди»
pectus excavatum (funnel-chest)	воронкоподібна грудна клітка, «груди шевця»
barrel-chest	емфізематозна (бочковидна) грудна клітка
pursing of the lips	зморщені губи
Stridor	стридор (свистяче дихання)
(a) inspiratory	а) струс
(b) expiratory	б) експіраторний
(c) biphasic	в) двофазний
tracheal tug	пульсація трахеї
parasternal heave	відчуття тяжкості за грудиною
intercostal retraction	міжреберні втягнення

Crepitations	Крепітації
Crackles	поверхнева (підшкірна) крепітація
Bronchi	Бронхи
bronchial breathing	бронхіальне дихання
pleural rub	шум тертя плеври
Aegophony	егофонія (бронхофонія з тремтячим звуком)
whispering pectoriloquy	пекторілоквія (різко посилена бронхофонія)
Abdominal	Живіт
Caput Medusae	«Голова Медузи» (розширення підшкірних вен передньої черевної стінки)
Hepatomegaly	Гепатомегалія
Splenomegaly	Спленомегалія
rebound tenderness	болючість при раптовому ослабленні тиску (на стінку живота) (симптом подразнення черевини)
generalized rigidity	генералізована ригідність
a succussion splash	шум плескоту
shifting dullness of ascites	зміна перкуторної тупості при асциті
fluid thrill of ascites	коливання рідини при асциті

Locomotor	Опорно-рухова система
Kyphosis	Кіфоз
Lordosis	Лордоз
Scoliosis	Сколіоз
joint swelling	набрякання суглобів
a joint effusion	випіт в суглобі
bony deformity	кісткова деформація
malalignment of a joint	зміщення суглоба
Crepitus	Крепітація
joint contracture	контрактура суглоба
Ocular	зорова система
Epiophora	епіфора, ретенційна сльозотеча
conjunctival injection	кон'юнктивальна ін'єкція
ciliary flush	гіперемія цилиарного тіла
dendritic ulcer	гілляста виразка рогівки
Hypopyon	нагноєння передньої камери ока
Hypaema	гіфема (крововилив в передню камеру ока)
glaucomatous cupping	глаукоматозна зміна
Entropion	Ентропія
Ectropion	Ектропія
Investigations	Дослідження
1. Laboratory Tests	1. Лабораторні тести
Full blood count	Повний аналіз крові
(i) red cell count	а) кількість еритроцитів
(ii) haemoglobin	б) гемоглобін
(iii) haematocrit (packed cell volume)	в) гематокрит (гематокритне число)
(iv) mean corpuscular volume	г) середній обсяг еритроцитів
(v) mean corpuscular haemoglobin	д) середній обсяг еритроцитарного гемоглобіну

(vi) mean corpuscular haemoglobin concentration	е) середня концентрація еритроцитарного гемоглобіну
(vii) reticulocyte count	ж) кількість ретикулоцитів
(viii) leucocyte count	з) кількість лейкоцитів
(ix) platelet count	і) кількість тромбоцитів
Erythrocyte sedimentation rate (ESR)	швидкість осідання еритроцитів (ШОЕ)
Coagulation tests	коагуляційні тести
(i) bleeding time	а) час кровотечі
(ii) prothrombin time	б) протромбіновий час
(iii) partial thromboplastin time	в) час утворення тромбoplastину
(iv) International normalized ratio (INR)	г) Міжнародний стандартизований індекс
Sodium	Натрій
Potassium	Калій
Chloride	Хлорид
Bicarbonate	бікарбонат (сода)
Urea	Сечовина
Calcium	Кальцій
Phosphate	Фосфат
Creatinine	Креатинін
uric acid	сечова кислота
Magnesium	Магній
Zinc	Цинк
Glucose	Глюкоза
- fasting	- натщесерце
- post prandial	- після їжі
serum iron	залізо сироватки
total serum iron binding capacity	загальна здатність сироватки зв'язувати залізо
Liver function tests	Функціональні проби печінки
(i) Bilirubin	а) білірубін
(ii) Alkaline phosphatase	б) лужна фосфатаза
(iii) Aspartate transaminase	в) аспартат трансамінази
(iv) total proteins	г) загальний білок
(v) albumin	д) альбумін
(vi) globulins	е) глобуліни
Fasting lipids	ліпіди натщесерце
(i) triglycerides	а) тригліцериди
(ii) cholesterol	б) холестерин
serum amylase	амілаза сироватки
Cortisol	Кортизол
thyroxine (T4)	тироксин (T4)
thyroid stimulating hormone	тиреотропний гормон
serum protein electrophoresis	електрофорез протеїну сироватки
Arterial blood gases	Артеріальні гази крові
(i) pH	а) рН
(ii) oxygen (pO ₂)	б) кисень (pO ₂)
(iii) carbon dioxide (pCO ₂)	в) діоксид вуглецю (PCO ₂)
Serological tests	серологічні тести
(i) rheumatoid factor	а) ревматоїдний фактор

(ii) antinuclear factor	б) антинуклеарний фактор
(iii) HLA typing	в) HLA-типування
Blood cultures	Культури крові
aerobic organisms	а) аеробні організми
anaerobic organisms	б) анаероби
viral antibody titres	титри вірусних антитіл
Gram stain (e. g. of a specimen of pus)	Фарбування по Граму (Наприклад, при гнійних ураженнях)
Urinalysis (urine culture and microscopy)	Аналіз сечі (посів на культуру і мікроскопія)
(i) specific gravity	а) питома вага
(ii) osmolality	б) осмоляльність
(iii) casts	в) циліндри
(iv) sediment	г) осад
creatinine clearance	кліренс креатиніну
faecal occult blood	прихована кров у калі
faecal fat	фекальний жир
pulmonary function tests	функціональні легеневі
(Spirometry)	тести (спірометрія)
forced expiratory volume in 1 Second	форсований обсяг видиху за 1 секунду
forced vital capacity	життєва ємність легенів
functional residual capacity	функціональна залишкова ємність
peak expiratory flow rate	піковий рівень на видиху
Electrocardiogram (ECG)	Електрокардіограма (ЕКГ)
(a) resting	а) в спокої
(b) exercise	б) під навантаженням
(c) 24-hour ambulatory	в) 24-годинний амбулаторний моніторинг
X-ray studies	рентгенологічні дослідження
chest x-ray	рентгенографія грудної клітки
(a) posteroanterior	а) передньозадні проекції
(b) lateral	б) бічні проекції
plain abdominal film	оглядова рентгенограма черевної порожнини
barium meal	барій внутрішньо
barium enema	барієва клізма
intravenous urogram	внутрішньовенна урограма
coronary angiogram	коронарна ангиограма
Myelogram	Мієлограма
Arteriogram	Артеріограми
Ultrasound	Ультразвук
echocardiogram	Ехокардіограма
computerized axial tomography (CT)	аксіальна комп'ютерна томографія (КТ)
magnetic resonance imaging (MRI)	ядерний магнітний резонанс (ЯМР)
radionuclide scan	радіонуклідне сканування
Urodynamics	Уродинаміка
electroencephalogram	електроенцефалограма (ЕЕГ)
nerve conduction studies	дослідження нервової провідності
allergy testing of the skin	алергічні шкірні проби
pure tone audiometry	тональна аудіометрія
impedance audiometry	імпедансна аудіометрія

brain-stem evoked response test	тест на реакцію стовбура
(BSER)	головного мозку
Endoscopy	Ендоскопія
Gastroscopy	Гастроскопія
endoscopic retrograde	ретроградна ендоскопічна
cholangio-pancreatography	Холангіопанкреатографія
sigmoidoscopy	Сигмоїдоскопія
Colonoscopy	Колоноскопія
Cystoscopy	Цистоскопія
Bronchoscopy	Бронхоскопія

Supplement 2 (Phrasal verbs)

Д і є с л о в о	С и н о н і м	П е р е к л а д
A		
<i>Add smth. Up</i>	Calculate	Р а х у в а т и щ о - н
add up	make sense	в і д п о в і д а т и л о г і ц і
add up to smth	equal	р і в н я т и с я д о ч о г о с ь
<i>ask smb. over</i>	invite	з а п р о ш у в а т и к о г о с ь д о д о м у
<i>ask smb.</i>	invite on a date	з а п р о ш у в а т и к о г о с ь н а п о б а ч е н н я
B		
<i>Back off</i>	Retreat	В і д с т у п а т и
back smb. Up	support	п і д т р и м у в а т и к о г о с ь
<i>be back</i>	return	п о в е р т а т и с я
be off	leave	й т и
	be free	б у т и в і л ь н и м
be out	leave	й т и
be out of smth.	not have	з а л и ш а т и с я б е з ч о г о с ь
be over	End	з а к і н ч у в а т и с я
be up	be awake	н е с п а т и
<i>blow smth. up</i>	explode	в з р и в а т и щ о - н
blow up	explode	в и б у х а т и

<i>break smth. down</i>	crush	ламати <i>ЩО-Н</i>
break down	stop working	лагатися (<i>про машину і т.п.</i>)
	get upset	розчаруватися до сліз
break in	enter by force	вторгатися
	interrupt	перервати розмову
break smth. in	wear a few times	розношувати <i>ЩО-Н</i> (<i>одяг і т.п.</i>)
*break into smth.	enter by force	втручатися в <i>ЩО-Н</i>
break out	begin suddenly	раптово починається
break smth. up	Stop	зупиняти <i>ЩО-Н</i>
break up	end a relationship	розтаватися (<i>розривати стосунки</i>)
<i>bring smth. about</i>	effect	здійснювати <i>ЩО-Н</i>
	cause	визвати <i>ЩО-Н</i> (<i>бути причиною</i>)
bring smth. back	return	повертати <i>ЩО-Н</i>
bring smth. up	mention	згадувати <i>ЩО-Н</i>
bring smb. Up	Rear	виховувати <i>КОГО-Н</i> (<i>з малово віку</i>)
С		
<i>Call smb. back</i>	Return a phone call	Перезвонювати <i>КОМУ-Н</i>
call in	visit information	заходити в гості
call smth. Off	cancel	відмінити <i>ЩО-Н</i>
*call on smb.	Visit	відвідувати <i>КОГО-Н</i>
call smb. Up	phone	дзвонити до <i>КОГОСЬ</i>
<i>calm down</i>	Relax	заспокоювати (<i>після хвилювання</i>)
<i>carry on</i>	continue	продовжувати
<i>carry smth. out</i>	perform	виконувати <i>ЩО-Н</i>
<i>catch smb. up</i>	reach	наздоганяти <i>КОГО-Н</i>
<i>catch up with smb.</i>	reach	наздоганяти <i>КОГО-Н</i>

check in	register	регіструвати (в готелі і т.п.)
check out	leave	виписуватися (з готеля)
check smth. out	Look	дивитися на що-н
cheer up	become happier	радіти
cheer smb. up	make happier	піднімати кому-н настрій
chill out	Relax	заспокоюватися (після хвилювання)
clean smth. up	Clear	прибирати що-н (кімнату і т.п.)
*come across smth.	find by chance	знаходити що-н випадково
come apart	break into pieces	розламувати (на куски)
come back	return	повертатися
come down	descend	спускатися
come down with smth.	become sick	захворіти чим-н
come in	Enter	заходити
come on	begin	починатися
come on!		1) давай! 2) ладно тобі!
come out	be successful	получатися
come up	appear	появлятися
*count on smb.	rely on	полягатися на когось
cut back on smth.	reduce	зменшувати що-н (трати і т.п.)
cut smth. down	Fell	повалювати що-н на землю
cut down on smth.	reduce	зменшувати що-н (трати і т.п.)
cut smth. Off	remove by cutting	вдрізати що-н
cut smth. Out	shape by cutting	вирізати що-н

cut it out!		зупинись!
cross smth. out	draw a line through	закреслювати що-н
<hr/>		
D		
Do smth. over	Do again	Переробляти що-н
do smth. Up	fasten	защібати що-н (куртку і т.п.)
	Wrap	упаковувати що-н
dress up	wear nice clothes	красиво одягатися
drop by	visit informally	заходити в гості
drop in	visit informally	заходити в гості
drop smb. Off	let off	висажувати кого-н (з транспорту)
drop off	fall asleep	засинати
drop out of smth.	Quit	кидати що-н (школу і т.п.)
<hr/>		
E		
Eat in	Eat at home	їсти дома
eat out	eat at a restaurant	їсти в ресторані або кафе
eat smth. Up	eat entirely	з'їдати щось повністю
end up	result	опинятися
*end up smth.	do eventually	робити що-н
<hr/>		
F		
Fall apart	Break into pieces	Розламуватися (на частини)
fall down	fall to the ground	падати на землю
*fall off smth.	fall from	падати з чогось
fall out	separate	випадати (про волосся і т.п.)
fall out with smb.	stop being friends	сваритися з ким-н
figure smth. out	understand	розуміти що-н
fill smth. Out	complete	заповнювати що-н
find smth. out	discover	знавати що-н
<hr/>		
G		

<i>Get along with smb.</i>	Be friendly	У ж и в а т и с я з к и м - н
get around	travel	р о з ' ї ж д ж а т и (з м і с ц я н а м і с ц е)
	spread	р о з п о в с ю д ж у в а т и с я
*get around smth.	avoid	у н и к а т и ч о г о с ь
get away	leave	п і т и
get back	return	п о в е р т а т и с я
get smth. back	recover	п о л у ч а т и щ о - н н а з а д
get down	descend	у п у с к а т и с я
get in	get inside	з а х о д и т и в с е р е д и н у
get off	leave a vehicle	в и х о д и т и (з а в т о б у с у , п о ї з д а і т . п .)
get on	board a vehicle	с і д а т и (в а в т о б у в , п о ї з д і т . п .)
get on with smb.	be friendly	в ж и в а т и с я з к и м - н
get on with smth.	manage	с п р а в л я т и с я з ч и м - н
get out of smth.	get outside	в и х о д и т и з ч о г о с ь - н
*get over smth.	overcome	п е р е д о л а т и щ о - н
get over it!		з м и р и т и с я з ц и м !
*get through smth.	Pass	в и т р и м у в а т и щ о - н
get through to smb.	contact	д о з в о н и т и с я д о к о г о с ь
get through with smth.	finish	з а к і н ч у в а т и з ч и м о с ь
get up	stand	п р о к и д а т и с я
give smth. away	donate	д а р у в а т и щ о - н
give smth. back	restore	в і д д а в а т и щ о - н н а з а д
give in	Yield	у с т у п а т и (в с у п е р е ч ц і і т . п .)
give smth. Up	Quit	п е р е с т а в а т и щ о - н

		р о б и т и
give up	stop trying	з д а в а т и с я
go ahead!		д а в а й!
go away	leave	п і т и
go back	return	п о в е р т а т и с я
go down	become lower	й т и в н и з
go in	Enter	в х о д и т и
go off	leave	п і т и
go on	continue	п р о д о в ж у в а т и
go out	leave home	п і т и н а в у л и ц ю
go out with <i>smb.</i>	Date	з у с т р і ч а т и с я з <i>к и м - н (н а п о б а ч е н н і)</i>
*go over <i>smth.</i>	review	п р о д и в л я т и с я <i>щ о - н</i>
go up	Rise	п і т и у в е р х
grow up	become an adult	п і д р о с т и

Н

Hang around	Waste time	Б у т и б е з д і л а
hang on!		1) п о ч е к а й! 2) т р и м а й с я!
hang out	Relax	в і д п о ч и в а т и
hang <i>smth.</i> up	put on a hook	в і ш а т и <i>щ о - н (н а к р ю ч о к і т.п.)</i>
hang up	end a phone call	к л а с т и с л у х а в к у
have <i>smth.</i> on	Wear	б у т и в д я г н е н и м в <i>щ о - н</i>
	switch on	з а л и ш а т и <i>щ о - н</i> у в і м к н е н и м
have <i>smb.</i> On	Trick	р о з і г р а т и <i>к о г о - н</i>
hold <i>smb.</i> back	restrain	с т р и м у в а т и <i>к о г о - н</i>
hold <i>smth.</i> back	Hide	з а х о в у в а т и <i>щ о - н</i>
hold on!		1) п о ч е к а й! 2) т р и м а й с я!
hold <i>smb.</i> Up	delay	з а т р и м у в а т и <i>к о г о - н</i>
	Rob	г р а б у в а т и <i>к о г о - н</i>
hold up	be strong	т р и м а т и с я

(к о н т р о л ю в а т и
с е б е)

hurry up!

ш в и д ш е!

K

<i>Keep away from smth.</i>	Avoid	Т р и м а т и с я в с т о р о н і в і д ч о г о с ь
<i>keep smth. down</i>	restrain	с т р и м у в а т и щ о - н
<i>*keep on smth.</i>	continue	п р о д о в ж у в а т и щ о - н р о б и т и
<i>keep smb. out</i>	stop from entering	т р и м а т и к о г о с ь з о в н і
<i>keep out of smth</i>	avoid	т р и м а т и с я в с т о р о н і в і д ч о г о с ь
<i>keep smth up</i>	continue	п р о д о в ж у в а т и
<i>keep up with smb</i>	keep pace	в с т и г а т и з а к и м о с ь
<i>kick smb. out</i>	Eject	в и г а н я т и к о г о с ь

L

<i>Let smb . down</i>	Disappoint	Р о з ч а р о в у в а т и с ь в к о м у с ь
<i>let smth. Down</i>	lower	о п у с к а т и щ о с ь
<i>let smb . in</i>	allow to enter	в п у с к а т и к о г о с ь
<i>let smb. out</i>	allow ti leave	в и п у с к а т и к о г о с ь
<i>lie down</i>	lay oneself	л я г а т и
<i>look after smb</i>	take care off	н а г л я д а т и з а к и м о с ь
<i>look back</i>	look around	о г л я д а т и с ь
<i>look down on smb</i>	disdain	з н е в а ж а т и к о г о с ь
<i>look for smth</i>	try to find	ш у к а т и щ о с ь
<i>look forward to smth.</i>	wait with pleasure	ж д а т и з н е т е р п і н н я м
<i>look into smth.</i>	investigate	в и в ч а т и
<i>look like smth.</i>	resemble	б у т и с х о ж и м
<i>look like smth.</i>	resemble	б у т и с х о ж и м
<i>look out!</i>		о б е р е ж н і ш е!
<i>look out for smth.</i>	Sight	в и г л я д у в а т и щ о с ь

look smth .over	check	п е р е в і р я т и щ о с ь
look smth .up	Find in a book	ш у к а т и щ о с ь
look up to smb.	respect	п о в а ж а т и к о г о с ь

M

Make smth.up	Invent	П р и д у м у в а т и щ о с ь
mix smth .up	confuse	п у т а т и щ о с ь
move in	Occupy a new place	в ї з д ж а т и
move on	Progress	р у х а т и с ь д а л і
move out	Vacate a place	п е р е ї з д ж а й
move over!		п р о й д и !

P

Pass away	Die	П о м и р а т и
pass out	Faint	в т р а ч а т и с в і д о м і с т ь
pass smth.out	distribute	р о з д а в а т и щ о н е б у д ь
pay smb.back	repay	п о в е р т а т и к о м у с ь щ о с ь
pick smth.out	choose	в и б и р а т и щ о с ь
pick smth .up	Lift	п і д б и р а т и щ о с ь
pick smb.up	collect	з а ї х а т и з а к и м о с ь
piss smb.off	annoy	д р а т у в а т и к о г о с ь
piss off!		в і д в а л и !
point smth.out	indicate	у к а з у в а т и н а щ о с ь
pull smth.away	Hide	п р и б и р а т и щ о с ь н а м і с ц е
put smth.back	return	к л а с т и щ о с ь н а з а д
put smth.down	stop holding	к л а с т и щ о с ь
put smth.in	insert	в с т а в л я т и щ о с ь
put smth.off	postpone	в і д к л а д а т и щ о с ь
put smth .on	put clothes	н а д я г а т и щ о с ь
put smth.out	extinguishbluid	г а с и т и
put smth.up	Bluid	б у д у в а т и

put up with smth.	tolerate	миритися з чим небудь
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R

Run across smb.	Meet by chance	Зустрічати когось неочікувано
run away	escape	втікати
run into smb	meet by chance	зустрічати когось неочікувано
run out of smth	exhaust	тратити щось
run over	overflow	переповнюватися
run over smb.	hit with a car	збивати когось

S

See smb.off	Go say good-bye	Проводжати когось
set off	start a journey	відправляти в дорогу
set smth.up	Organize	організовувати
shop around	compare prices	порівнювати ціни
show smth .off	Brag	вихвалюватись
show up	Appear	з'являтись
shut up!		замовчи!
sit down	take a seat	сідати
sort smth.out	find a solution	вирішувати щось
stand by	be ready	бути готовим
stand by smb	Support	підтримка
stand up	Rise to the feet	вставати
stay away from smth	Avoid	триматися в стороні від чогось
switch smth.off	turn off	виключати щось
switch smth.on	turn on	включати щось

T

Take after smb.	Resemble	Бути схожим
take smth.back	Return	повертати щось
take smth. off	remove clothes	знямати щось

take off	start to fly	в з л і т а т и
take smth.out	Extract	в и й м а т и
take smb . out	Invite	з а п р о ш у в а т и
		к о г о с ь
take smth .over	Adopt	п е р е й м а т и щ о с ь
take smth.up	get interested	з а х о п л ю в а т и с ь
		ч и м о с ь
tear smth.down	Destroy	р у й н у в а т и
tear smth.up	rip into pieces	р в а т и щ о - н
think smth .over	consider	о б д у м у в а т и
throw smth .away	get rid of	в и к и д а т и щ о с ь
throw smth .out	get rid of	в и к и д а т и щ о - н
throw smth .up	Vomit	н е п р и й м а т и щ о - н
try smth .on	sample clothes	п р и м і р я т и
try smth .out	Test	т е с т у в а т и
turn around	move in rotation	п о в е р т а т и с я
turn away	avert eyes	в і д в е р т а т и с я
turn back	Reverse	п о в е р т а т и с я н а з а д
turn smth.down	Decrease	з б і л ь ш у в а т и щ о с ь
turn in	go to bed	л я г а т и с п а т и
turn into smth	change into	п е р е т в о р ю в а т и
		щ о с ь
turn smth. off	switch off	в и к л ю ч а т и
turn smth.on	switch on	в к л ю ч а т и
turn out	get up	в с т а в а т и
turn smth.up	increase	п р и б а в л я т и щ о - н
turn up	appear	з я в л я т и с я
U		
Use smth.up	Exhaust	Р о з х о д и (т р а т и т и
		щ о - н)
W		
Wake up	Stop sleeping	П р о к и д а т и с я
walk around	wander	г у л я т и
walk away	leave	п о к и д а т и
walk in	enter	в х о д и т и
walk out	leave	в и х о д и т и

watch out!

work smth .out

work out

write smth .down

calculate

be successful

note

о б е р е ж н і ш е

в и р і ш у в а т и щ о - н

в и х о д и т и щ о с ь - н

з а п и с у в а т и щ о - н