Міністерство охорони здоров'я України
Українська медична стоматологічна академія

ЗАТВЕРДЖЕНО
на засіданні кафедри
іноземних мов з латинською мовою
та медичною термінологією
Протокол № 1
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Завідувач кафедри
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МЕТОДИЧНІ ВКАЗІВКИ ДЛЯ САМОСТІЙНОЇ АУДИТОРНОЇ ТА ПОЗААУДИТОРНОЇ РОБОТИ СТУДЕНТІВ ПІД ЧАС ПІДГОТОВКИ ДО ПРАКТИЧНОГО ЗАНЯТТЯ

Навчальна дисципліна	Англійська мова
Модуль № 1	Медична термінологія
Тема заняття	Захворювання серцево-судинної системи
Курс	II
Факультет	медичний № 1,2 (стн)
Кваліфікація	освітня «Магістр медицини» професійна «Лікар»
Галузь знань	22 «Охорона здоров'я»
Спеціальність	222 «Медицина»

Полтава – 2019

1. АКТУАЛЬНІСТЬ ТЕМИ

«Англійська мова» як навчальна дисципліна ґрунтується на вивченні студентами медичної біології, фізики, фізіології та латинської мови та інтегрується з цими дисциплінами; закладає основи знань з медичної термінології з перспективою їх подальшого використання у професійній діяльності; поглиблює знання спеціальних дисциплін; формує уміння застосовувати отриманні знання у професійній підготовці та складанні ліцензійного іспиту «Крок 1. Медицина» (субтест англійською мовою).

2. КОНКРЕТНІ ЦІЛІ

Засвоїти базову термінологію, що відноситься до теми «Захворювання серцево-судинної системи».

Виокремлювати значення автохтонних і міжнародних (греко-латинських) словотворчих елементів медичних термінів, виводити значення незнайомих слів, спираючись на їхні структурні компоненти та контекст. Демонструвати знання термінів під час інтерпретації фахових текстів на релевантну тематику.

Актуалізувати та інтерпретувати граматичні явища і синтаксичні конструкції типові для текстів, мікротекстів та тестових завдань.

Визначати смислові опори в тексті та реченнях (терміни, ключові слова, граматичні основи).

Розвити навички швидкого безперекладного читання тестових завдань до складання інтегрованого ліцензійного іспиту КРОК 1 «Медицина» з їх детальним розумінням. Інтерпретувати зміст завдань субтесту ліцензійного іспиту «Крок 1» на релевантну тематику англійською мовою.

3. БАЗОВІ ЗНАННЯ, ВМІННЯ, НАВИЧКИ, НЕОБХІДНІ ДЛЯ ВИВЧЕННЯ ТЕМИ (МІЖДИСЦИПЛІНАРНА ІНТЕГРАЦІЯ)

Назви попередніх дисциплін	Отримані навики
1. Латинська мова. 2. Англійська мова. 3. Нормальна анатомія. 4. Біологія. 5. Біохімія. 6. Мікробіологія. 7. Нормальна фізіологія. 8. Гістологія.	Розуміти та правильно вимовляти терміни, запозичені з латинської (грецької) мови. Знати основні поняття та терміни з теми. Використовувати раніше отриману інформацію в контексті певної ситуації спілкування англійською мовою за зазначеною темою. Знати граматичний матеріал, типовий для викладу теми.

4. ЗАВДАННЯ ДЛЯ САМОСТІЙНОЇ РОБОТИ ПІД ЧАС ПІДГОТОВКИ ДО ЗАНЯТТЯ

4.1. Перелік основних термінів, які повинен засвоїти студент при підготовці до заняття:

angioplasty ['ɤnɢlq"plɤstl] ангіопластика
angina pectoris [ɤn"ɢainq 'pɕktqrls] стенокардія
bypass ['balpʀs] шунт; обхід, шунтування
catheter ['kɤTltq] катетер
deposit [dl'pOzlt] відкладення, осад
resemble [rl'zqmbl] бути схожим, подібним
clump [klʔʌmp] скупчуватись, склеюватись
streak [strl:k] смуга, лінія, штрих
atheroma ["ɤTq'roumq] атеросклеротична
ischemia [l'skJmlq] ішемія
ischemic [l'skJmlk] ішемічний
cholesterol [kq'lɕst(q)rOl] холестерин
obstruct [qb'strʔʌkt] блокувати, ускладнювати прохідність
blood flow ['blʔʌd 'flqu] кровотік
detour ['dl:tuq] обхід
aneurysm ['ɤnjuqrlzm] аневризма
estimate ['ɕstlmɕlt] визначати, оцінювати
suspect [sqs'pɕkt] підозрювати, робити

бляшка
invade [ɪn'veɪd] уражати, захоплювати
scarring ['skɑ:rlɪŋ] рубці, рубцювання
plaque [plɑ:k] бляшка

припущення
elaborate [ɪ'læbqreɪt] детально обдумувати, опрацьовувати
stroke [strquk] інсульт
lipotropic [lɪpɔ'trɔ:plk] ліпотропний
dislodge [dɪs'lɔʤ] пересувати, переміщати, усувати
quota ['kwqutq] частина, частка

4.2. Теоретичні питання до заняття:

1. What is the Imperative Mood?
2. What is the main function of imperative sentence?

4.3. Практичні завдання, які виконуються на занятті:

1. Вивчення лексико-фонетичного та граматичного матеріалу з теми.
2. Читання та переклад тексту.
3. Виконання лексичних вправ.
4. Відповіді на запитання з теми.
5. Анотування тексту з теми.
6. Складання діалогів за темою.
7. Надання інформації за темою, що вивчається.

5. ЗМІСТ ТЕМИ

WORD-BUILDING

Ex. 1. Term Elements
micro- (small**)**
microvascular – *relating to small blood vessels*
microerythrocyte – *a small nonnuucleated red blood cell*
microinfarction – *a very small infarct due to obstruction of circulation in capillaries, arterioles, or small arteries*

macro- (large, long, abnormally large)
macroanalysis – *qualitative or quantitative analysis of chemicals that are in quantities of order of grams*
macroplasia – *abnormally large size of a part of a body or tissue*
macroshock – *a strong electric shock resulting from current that has passed through the trunk, with contact to the source through intact skin*

2. Form the term (C) with the given meaning (A) using term elements micro- or macro- (B).

A	B	C
1. a very small, localized collection of pus		1. _____*microabscess* _____
2. a type of angiography that consists of the radiography of small blood or lymphatic vessels of an organ		2. _____
3. pertaining to extremely small blood vessels		3. _____
4. an extremely small aneurysm	**macro-**	4. _____
5. an organism that is too small to be seen by the unaided eye, especially a single-celled organism, such as a		5. _____

bacterium 6. a large phagocyte; some are fixed and other circulate in the blood stream 7. pertaining to the larger blood vessels 8. any organism that can be seen with the naked eye (or with a simple lens)	**micro-**	6. _____ 7. _____ 8. _____

GRAMMAR

Ex. 1. Familiarize yourself with the data of the following tables:

IMPERATIVE MOOD

Stand up!	Встаньте!
Don't be late!	Не запізнюйтесь!
Do write to me.	Будь ласка, пишіть мені!
Let us read this text once more.	Давайте прочитаемо цей текст ще раз.
Let them do it now.	Хай вони зроблять це зараз!

Ex. 2. Read and translate the following sentences:

1. Listen to me attentively. 2. Order this drug in the pharmacy. 3. Take this medicine a teaspoonful twice a day before meals. 4. Take these tablets one every three hours. 5. Apply mustard plasters every day before going to bed. 6. Take warm tea with the raspberry jam. 7. Gargle your throat several times a day. 8. Make the analyses of blood and urine. 9. Start external cardiac massage immediately! 10. Take patient's temperature at 12 o'clock today and give him this drug. 11. Give me the case reports which are on the professor's table.

READING AND DEVELOPING SPEAKING SKILLS

3. Read and translate the words and word-combinations as quickly as you can.

Ischemic heart disease, acute myocardial infarction, arrhythmia, coronary artery, narrowing, closure, transient ischemia, myocardial scarring, ventricular fibrillation, hyperlipidemia, lumen, angina pectoris, chest discomfort, plaque, blood flow, decreased exercise tolerance, risk factors.

4. Read the text.

ISCHEMIC HEART DISEASE

Ischemic heart disease (IHD), also known as coronary heart disease, is a disease characterized by reduced blood supply to the heart. There are two types of coronary heart disease. They are **acute ischemic heart disease** which is usually manifested in acute myocardial infarction and sudden cardiac arrest and **chronic ischemic heart disease** which is marked by angina pectoris, different types of arrhythmias and heart failure.

Initially there is sudden severe narrowing or closure of either the large coronary arteries and/or of coronary artery end branches by debris showering downstream in the flowing blood. Limitation of blood flow to the heart causes ischemia (cell starvation secondary to a lack of oxygen) of the myocardial cells. **Myocardial cells** may die from lack of oxygen and this is called a myocardial infarction (commonly called a heart attack). It leads to heart muscle damage, heart muscle death and later myocardial scarring without heart muscle regrowth. Chronic high-grade stenosis of the coronary arteries can induce transient ischemia which leads to the induction of a ventricular arrhythmia, which may terminate into ventricular fibrillation leading to death.

While the **symptoms and signs** of ischemic heart disease are noted in the advanced state of disease, most individuals with ischemic heart disease show no evidence of disease for decades as the disease progresses before the first onset of symptoms, often a "sudden" heart attack, finally arises. Symptoms of stable ischemic heart disease include angina pectoris (characteristic chest pain on exertion) and decreased exercise tolerance.

Ischemic heart disease has a number of well determined **risk factors**. The most common risk factors include smoking, hypertension, obesity, diabetes, lack of exercise, stress, and hyperlipidemia. Smoking is associated with about 54% of cases and obesity 20%. Lack of exercise has been linked to 7–12% of cases. In most cases, ischemic heart disease is caused by atherosclerosis, usually present even when the artery lumens appear normal by angiography. With atherosclerosis, the artery's lining becomes hardened, stiffened, and swollen with calcium deposits, fatty deposits, and abnormal inflammatory cells – to form a plaque. Patients with coronary artery disease might have just one or two plaques, or might have dozens distributed throughout their coronary arteries. However, there is a term in medicine called cardiac syndrome X, which describes chest pain (angina pectoris) and chest discomfort in people who do not show signs of blockages in the larger coronary arteries of their hearts when an angiogram (coronary angiogram) is being performed. No one knows exactly what causes cardiac syndrome X. One explanation is microvascular dysfunction. It is not completely clear why women are more likely than men to have it however, hormones and other risk factors unique to women may play a role.

5. Match the words in column A with the words in column B.

A	B
cardiac	angiogram
inflammatory	supply
microvascular	deposits
coronary	arrest
blood	dysfunction
fatty	cells

6. Answer the questions. Add more ones of your own and discuss them with your partner.

1. What are the types of ischemic heart diseases? 2. What are the causes of ischemic heart diseases? 3. How are ischemic heart diseases associated with atherosclerosis? 4. What are the risk factors of ischemic heart disease? 5. How does ischemic heart disease develop? 6. What is cardiac syndrome X? 7. What is angina pectoris?

7. Complete the sentences with the words from the box below. There are two words you will not use.

1. Limitation of blood _____ to the heart causes ischemia of the myocardial cells. 2. Some cases of ischemia are asymptomatic, and there is a complete _____ of pain. 3. These cases are known as silent ischemia, and may give rise to a heart _____ without any warning signs at all. 4. Silent ischemia is prevalent among people _____ from angina, those who have had a history of heart attack, or people suffering from diabetes. 5. Ischemic heart disease is one of the most common _____ of cardiovascular disease and a leading cause of death. 6. Ischemic heart disease has been known to develop due to several risk factors such as having high _____ levels, diabetes mellitus and smoking. 7. People who suffer from high blood cholesterol or hypercholesterolemia have a higher degree of risk for _____ ischemia. 8. Some of the complications arising from this condition _____ angina pectoris, or angina. 9. This disorder is characterized by chest pain just underneath the_____. 10. The pain is a result of a _____ of oxygen to the heart caused by the plaque deposits irregularly lining the coronary arteries.

absence, attack, prevention, developing, cholesterol, include, causes, lack, breastbone,

anticoagulants, suffering, flow

8. Put questions as more as you can to the sentences.

1. There are two types of coronary heart diseases: acute ischemic heart disease and chronic ischemic heart disease. 2. Myocardial cells may die from lack of oxygen and this is called a myocardial infarction. 3. Chronic high-grade stenosis of the coronary arteries induces transient ischemia which leads to the induction of a ventricular arrhythmia, which may terminate into ventricular fibrillation leading to death. 4. Most individuals with ischemic heart disease show no evidence of disease for decades as the disease progresses before the first onset of symptoms, often a "sudden" heart attack, finally arises. 5. Symptoms of stable ischemic heart disease include angina pectoris (characteristic chest pain on exertion) and decreased exercise tolerance. 6. In most cases, ischemic heart disease is caused by atherosclerosis, usually present even when the artery lumens appear normal by angiography.

9. Read the text below. Determine whether the statements are true or false.

1. CABG is done to redirect blood flow.
2. Angioplasty involves surgical removal of coronary arteries.
3. Coronary angiogram is one of the ways to diagnose IHD.
4. Coronary stent is placed around the artery.
5. Coagulants are used in treating IHD.

TREATMENT OF ISCHEMIC HEART DISEASE

Diagnosis of IHD is with an electrocardiogram, blood tests (cardiac markers), cardiac stress testing or a coronary angiogram. Depending on the symptoms and risk, the appropriate treatment is prescribed. There are three main treatment options for ischemic heart disease: medical treatment; coronary interventions such as angioplasty and coronary stent; coronary artery bypass grafting (CABG).

Medicines used to treat IHD include anticoagulants, also called blood thinners; aspirin and other anticlotting medicines; ACE (angiotensin converting enzyme) inhibitors; beta blockers; calcium channel blockers; nitroglycerin; glycoprotein IIb-IIIa; statins; fish oil and other supplements high in omega-3 fatty acids.

Angioplasty is a nonsurgical procedure that opens blocked or narrowed coronary arteries. This procedure also is called percutaneous coronary intervention (PCI). Percutaneous coronary intervention is the procedure using balloon catheter to expand the narrow point of coronary arteries. Its effectiveness is now known to be the major procedure for angina pectoris and myocardial infarction. Catheter is threaded through skin and to the coronary arteries, and as the balloon tip is inflated, narrow point is expanded to restore the sufficient blood flow. During the procedure, the doctor may put a small mesh tube called a stent in the artery. The stent helps prevent blockages in the artery in the months or years after angioplasty.

Coronary artery bypass grafting diverts blood around narrowed or clogged parts of the major arteries to improve blood flow and oxygen supply to the heart. A CABG involves taking a blood vessel from another part of the body – usually the chest, leg or arm – and attaching it to the coronary artery above and below the narrowed area or blockage. This new blood vessel is known as a graft. The number of grafts depends on how severe your coronary heart disease is and how many of the coronary blood vessels have become narrowed.

10. Combine corresponding parts into sentences (1-10 and A-J), paying attention to the meaning of them. Speak on the treatment of ischemic heart disease.

1. There are various therapies, which are used _____. 2. Doctors may describe nitrates that work to dilate _____. 3. When placed under the tongue, they can_____. 4. Other medications, such as isosorbide mononitrate and isosorbide dinitrate are prophylactics that _____. 5. Pain relief may also be achieved my reducing the demand for oxygen and decreasing a

person's heart rate through _____. 6. Calcium channel antagonists are able to dilate constricted blood vessels, as well as lower a person's excitability, blood pressure, _____.7. Daily aspirin intake is known to thin the blood and prevent _____. 8. Surgery is a last resort option if _____. 9. This is particularly true if an angiogram result reveals _____. 10. These surgical procedures include coronary angioplasty, a process of dilating a congested blood vessel _____.

A. coronary arteries that have narrowed.
B. medical therapy has failed to relieve a person's ischemia symptoms.
C. at treating ischemic heart disease.
D. the use of Beta-blockers.
E. relieve chest pain in minutes.
F. prevent the occurrence of pain.
G. by inflating a balloon within the blood vessel itself.
H. and cholesterol levels.
I. platelets from forming into blood clots.
J. significant levels of blockage in the blood vessels.

11. Read and translate the text. Write out key words. Make up a plan of the text. Speak on the diet of individuals with heart diseases.

DIET AND HEART DISEASES

It has been suggested that coronary artery disease is partially reversible using an intense dietary regimen coupled with regular cardiovascular exercise. A high fiber diet appears to lower the risk.

Vegetarian diet: Vegetarians have been shown to have a 24% reduced risk of dying of heart disease.

Cretan Mediterranean diet: The Seven Countries Study found that Cretan men had exceptionally low death rates from heart disease, despite moderate to high intake of fat. The Cretan diet is similar to other traditional Mediterranean diets: consisting mostly of olive oil, bread, abundant fruit and vegetables, a moderate amount of wine and fat-rich animal products such as lamb, and goat cheese.

The consumption of trans fat (commonly found in hydrogenated products such as margarine) has been shown to cause the development of endothelial dysfunction, a precursor to atherosclerosis. The consumption of trans fatty acids has been shown to increase the risk of coronary artery disease.

Avoiding fats that are readily oxidized (e.g., trans-fats), and limiting carbohydrates and processed sugars may reduce low density lipoproteins, triacylglycerol and apolipoprotein-B thus decreasing the risk.

Secondary prevention is preventing further sequelae of already established disease. Regarding coronary artery disease, this can mean risk factor management that is carried out during cardiac rehabilitation, a 4-phase process beginning in hospital after myocardial infarction, angioplasty or heart surgery and continuing for a minimum of three months. Exercise is a main component of cardiac rehabilitation along with diet, smoking cessation, blood pressure and cholesterol management. Beta blockers may also be used for this purpose.

12. Translate the words and word-combinations into English without looking into the text above.

Режим харчування; ліпопротеїни низької щільності; дієта, збагачена клітковиною; попередник, провісник; коронарна ангіопластика; наслідок, ускладнення після хвороби; аортокоронарне шунтування; атеросклеротичні бляшки; консервативне лікування; препарати, що перешкоджають зсіданню крові; блокатори кальцієвих каналів; раптова коронарна смерть.

13. Insert the missing words.

There are several ways you can help ____ your risk of developing coronary heart disease, such as lowering your blood pressure and cholesterol ____. Combining a healthy diet with _____ exercise is the best way of maintaining a healthy_____. Having a healthy weight reduces your _____ of developing high blood pressure. Regular exercise will make your heart and blood _____ system more efficient, lower your cholesterol level, and also keep your blood _____ at a healthy level. If you smoke, giving up will reduce your risk of developing CHD. Smoking is a major ____ factor for developing _____ (furring of the arteries). It also causes the majority of cases of coronary _____ in people under the age of 50.

14. Translate the sentences into English.

1. Ішемічні хвороби серця – це група серцево-судинних хвороб, в основі яких лежить зміна кровообігу в артеріях, які забезпечують кров'ю міокард. 2. Просвіт судини звужується внаслідок появи атеросклеротичної бляшки. 3. Існує два види ішемічної хвороби: гостра форма (гострий інфаркт міокарда, раптова коронарна смерть) і хронічна форма ішемічної хвороби серця (стенокардія, різноманітні види аритмій і серцева недостатність). 4. Ішемія – це недостатнє надходження крові до якогось органу, викликане зменшенням або повним закупорюванням просвіту в артерії. 5. При ішемічній хворобі серця нерідко застосовується балонна ангіопластика і стентування, які можуть відновити прохідність в ушкоджених ішемією артеріях. 6. Інфаркт міокарда – часткове змертвіння серцевого м'яза внаслідок порушення його кровопостачання. 7. Основні причини серцево-судинних захворювань – гіподинамія (явище зниження рухової активності і зменшення витрат енергії), шкідливі звички (паління, алкоголь, наркотики), емоційні стреси (стан напруги, який виникає під впливом сильних подразників і є неспецифічною реакцією організму на їх дію), нераціональне харчування (сучасна людина вживає їжі набагато більше, ніж того потребують енергетичні втрати, що призводить до утворення жирової тканини), забруднення довкілля (пестициди, препарати побутової хімії тощо).

15. Add the sentences from the box (1-4) to the end of each paragraph where they fit the best. Speak on the causes and symptoms of angina pectoris.

ANGINA PECTORIS

If you are having pain or pressure in the middle of your chest, left neck, left shoulder, or left arm, go immediately to the nearest hospital emergency department. Do not drive yourself. _____

Angina, or angina pectoris, is the medical term used to describe the temporary chest discomfort that occurs when the heart is not getting enough blood. The heart is a muscle (myocardium) and gets its blood supply from the coronary arteries. Blood carries the oxygen and nutrients the heart muscle needs to keep pumping. When the heart does not get enough blood, it can no longer function at its full capacity. When physical exertion, strong emotions, extreme temperatures, or eating increase the demand on the heart, a person with angina feels temporary pain, pressure, fullness, or squeezing in the center of the chest or in the neck, shoulder, jaw, upper arm, or upper back. _____

The discomfort of angina is temporary, meaning a few seconds or minutes, not lasting hours or all day. An episode of angina is not a heart attack. Having angina means you have an increased risk of having a heart attack. _____

Prolonged or unchecked angina can lead to a heart attack or increase the risk of having a heart rhythm abnormality. Either of those could lead to sudden death. Time is very important in angina. The more time the heart is deprived of adequate blood flow (ischemia), and thus oxygen, the more the heart muscle is at risk of heart attack or heart rhythm abnormalities. The longer the patient experiences chest pain from angina, the more the heart muscle is at risk of dying or malfunctioning. Not all chest pain is angina. _____

1. A heart attack is when the blood supply to part of the heart is cut off and that part of the muscle dies (infarction).
2. This is angina, especially if the discomfort is relieved by removing the stressor and/or taking sublingual (under the tongue) nitroglycerin.
3. Call for emergency transport.
4. Pain in the chest can come from a number of causes, which range from not serious to very serious. For example, chest pain can be caused by acid reflux (gastroesophageal reflux disease), upper respiratory infection, asthma, or sore muscles and ligaments in the chest (chest wall pain).

16. Comprehend the text. Write out unknown words from it into your vocabulary (word – phonetics – translation) and learn them by heart. Make the conversation with your partner on causes and symptoms of myocardial infarction.

MYOCARDIAL INFARCTION

Myocardial infarction (MI) is a synonym for heart attack. Myo means "muscle", kardia means "heart", an infarct is an area of tissue that has died because of oxygen starvation.

Myocardial infarction results from a prolonged lack of blood flow to a portion of the cardiac muscle resulting in a lack of oxygen and cellular death. Myocardial infarctions vary with the amount of cardiac muscle affected and the part of the heart that is affected. If blood supply to cardiac muscle is reestablished within 20 minutes, no permanent damage occurs. If the lack of oxygen lasts longer, cell death results. However, within 30 to 60 seconds after blockage of a coronary blood vessel, functional changes are obvious. The electrical properties of the cardiac muscle are altered, and the ability of the cardiac muscle to function properly is lost.

The most common cause of myocardial infarction apparently is the formation of a thrombus that blocks a coronary artery. Coronary arteries narrowed by atherosclerotic lesions provide one of the conditions that increase the chances for myocardial infarctions.

The emergency signs and symptoms of myocardial infarction are the following: intense, prolonged chest pain, often described as a feeling of heavy pressure; pain may extend beyond the chest to the left shoulder and arm, back, and even teeth and jaw; prolonged pain in upper abdomen; shortness of breath, fainting episode; and nausea, vomiting, and intense sweating. Heart attacks are the leading cause of death for both men and women worldwide. Important risk factors are previous cardiovascular disease, older age, tobacco smoking**,** high blood levels of certain lipids (triglycerides, low-density lipoprotein) and low levels of high-density lipoprotein (HDL), diabetes, high blood pressure, obesity, chronic kidney disease, heart failure, excessive alcohol consumption, the abuse of certain drugs, and chronic high stress levels.

17. Put questions to each paragraph. Compose short dialogue and reproduce it with your partner.

DISORDERS OF HEART RATE AND RHYTHM

_____?

The pumping of the heart must be constant and continuous. If the process becomes interrupted or disordered, the heart may fail to deliver the blood which is essential for tissues' functioning. The heart itself is two pumps, each of which consists of a pair of hollow chambers formed of involuntary muscle. The contraction of the muscle causes blood to be pumped. The control mechanism for the heart rate involves electrical impulses. One of the four chambers of the heart (the right atrium) contains a group of cells called the sinus node. The sinus node acts as a pacemaker producing electrical impulses that signal the muscle of the heart to contract in the pumping cycle.

_____?

The heart rate varies depending on the human activity at any given moment. When a person is at rest, his/her heart pumps more slowly and at regular rate (about 60 to 80 beats a minute). When a person runs or climbs stairs, the sinus node issues electrical “instructions” to increase the pace of the heart in order to provide the muscles and other tissues with necessary additional blood and its supply of oxygen. The heart rate may increase up to 200 beats a minute if you exert yourself strenuously.

_____?

If something goes wrong with the functioning of the sinus node and the normal pacing of the heart is disturbed, one of a number of rhythmic disorders of the heart may occur. Too rapid a heartbeat is termed tachycardia and too slow a heart rate is bradycardia.

_____?

The heart rate may be affected by various factors including tobacco use, caffeine-containing foods, alcohol, and a number of drugs, both prescription and nonprescription. In addition, the cardiac disorders may produce heart rate problems.

18. Comprehend the text. Compose vocabulary to it. Say what topic each paragraph is concerned with.

HEART DISEASES

Heart disease describes a range of conditions that affect your heart. Coronary heart disease is a common type of heart disease. This condition results from a buildup of plaque on the inside of the arteries, which reduces blood flow to the heart and increases the risk of a heart attack and other heart complications. Other forms of heart disease include irregular heartbeat (arrhythmias), congenital heart defects, weak heart muscles (cardiomyopathy), heart valve problems, heart infections, and cardiovascular disease.

The term "heart disease" is often used interchangeably with the term "cardiovascular disease." Cardiovascular disease generally refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke. Other heart conditions, such as those that affect your heart's muscle, valves or rhythm, also are considered forms of heart disease.

Symptoms of heart disease vary depending on the specific condition. For example, if you have a heart arrhythmia, symptoms may include a fast or slow heartbeat; dizziness; lightheadedness; chest pains; shortness of breath. Symptoms of congenital heart defect may include skin discoloration, such as a bluish or pale color. You may also notice swelling in your legs and stomach. You might become easily tired or have shortness of breath shortly after beginning any type of physical activity. If you have weak heart muscles, physical activity may cause tiredness and shortness of breath. Dizziness and swelling in the legs, ankle, or feet are also common with cardiomyopathy. Signs and symptoms of a heart infection can include: tiredness; coughing; skin rash; irregular heartbeat; swelling in legs and stomach.

Several factors increase your risk of heart disease, like a family history of the disease, age, or ethnicity. Other common risk factors include smoking, high blood pressure, high blood cholesterol, diabetes, poor diet, lack of exercise, obesity, stress, and poor hygiene (some viral and bacterial infections can affect the heart).

Many forms of heart disease can be prevented or treated with healthy lifestyle choices.

19. Match the terms with their definitions.

TERM	DEFINITION
1. hypertension	**A**. build of plaque on the walls of the artery
2. cardiomyopathy	**B**. permanent damage to the heart muscle; death of heart tissue due to lack of blood supply
3. thrombus	**C**. disorder of the heart rate
4. atherosclerosis	**D**. high blood pressure

5. heart attack	**E**. chest pain
6. angina	**F**. a blood clot
7. arrhythmia	**G**. a chronic disease of the heart muscle

20. Read the dialogue in pairs. Reproduce the similar one.

Cardiologist: What seems to be the problem?
Patient: My heart often troubles me.
Cardiologist: Is your pain cutting or dull?
Patient: I have a stitch in my heart.
Cardiologist: Do you have any difficulty in breathing?
Patient: Yes, I do. I have breathlessness when ascending a staircase or walking quickly.
Cardiologist: What else troubles you?
Patient: My temperature is not stable. It is rising by the evening. I often have a general malaise and get tired after some physical exertion.
Cardiologist: When did you notice these disturbances? When have the pains in your heart become constant?
Patient: These disturbances appeared some years ago. My pains have become constant this year.
Cardiologist: What diseases did you suffer from in the past?
Patient: In my childhood I often had quinsy but then I had my tonsils removed. When I was in my 20's I noticed the signs of rheumatism, but I had no idea of it.
Cardiologist: Do you have a pain in your joints?
Patient: Yes, I do. My hands and legs become periodically swollen and painful.
Cardiologist: Have you ever been treated at a hospital?
Patient: Yes, I have. Last year I was hospitalized and treated at the hospital. My diagnosis was rheumatism.
Cardiologist: Did you have any improvement after the treatment in the hospital?
Patient: Yes, I did. Last summer I was treated at the sanatorium too and I felt well.
Cardiologist: Now strip to the waist, please. I'll examine you.
(After examination)
I'm going to be frank with you. It seems as though you have a serious condition. Your main disease is rheumatism and that's why you must be periodically treated at the hospital. But at present you have to make electrocardiogram and to come to me. I'll administer you the treatment for your heart. I advise you to avoid intensive physical exertion. You should not be tired. Walk in the fresh air as much as possible.

21. Read the text. Write out unknown words and translate the text into Ukrainian.

ATHEROSCLEROSIS

Healthy arteries are like healthy muscles. They are strong, flexible, and elastic. Atherosclerosis is the condition in which fatty deposits accumulate in and under the lining of the artery walls. The name comes from the Greek word *ather*, meaning "porridge", because the fatty deposits are soft and resemble porridge. Blood cells (platelets) often clump at microscopic sites of injury to the inner wall of the artery. At these sites, fat deposits also collect. Initially, the deposits are only streaks of fat-containing cells but, as they enlarge, they invade some of the deeper layers of the arterial walls, causing scarring and calcium deposits.

Large accumulations called atheromas or plaques are the principal characteristic of atherosclerosis. The greatest danger from these deposits is the narrowing of the channel through which the blood flows. When this occurs, the tissues that the artery supplies will not receive their full quota of blood. Pieces of the fatty deposits may be dislodged, travel with the blood flow, and finally obstruct an artery at some distant point. Atherosclerosis may be discovered in the course of a routine physical examination. During examination of patient's neck, abdomen, or other parts of the body, the physician may hear a blowing sound if a narrowing of the lining of the arteries at one or more these points causes turbulence of the blood flow.

The physician also will estimate the amount of blood flow by feeling for pulsations in the arteries at the wrists, legs, and feet. A decrease in pulsations is a reason to suspect partially obstructed blood flow.

More elaborate tests of circulation using sound waves often help in establishing the presence and degree of decreased blood flow. Ultrasound scan of the abdomen often is used to identify a suspected aneurysm of the aorta in the abdomen. Another test for locating the sites of plaques that narrow blood vessels is arteriography. In many cases, the diagnosis is not suspected until the artery is completely obstructed and the person has experienced a stroke, heart attack, or arterial thrombosis.

To some extent, the body can protect itself from narrowing of a particular artery by developing, with time, additional arterial connections that detour blood around the narrowed point. This is called collateral circulation.

Although atherosclerosis occurs to some extent in all middle-aged and elderly people and even may occur in certain young people, some people appear more at risk because of high blood cholesterol levels.

The best prevention and treatment of atherosclerosis is certain regimen, sound sleep, rest, and proper diet. Vitamins are widely used in the treatment of this disease. Other drugs administered in treating atherosclerosis are so-called lipotropic substances, which prevent fat from accumulating in the organism.

22. Match the terms in column A with their synonyms in column B. Compose 7 word-combinations with them.

A	B
accumulation	blocking
to cause	to appear
to discover	to produce
obstruction	heart failure
heart attack	lesion
injury	to find
to occur	storage

23. Complete the sentences with suitable words or word-combinations from the box.

1. Atherosclerosis is a condition characterized by an _____ of soft masses of fatty materials, particularly cholesterol, on inside of the arterial walls. 2. Such deposits are called _____. 3. _____ is influenced by genetic and environmental factors (including diet). 4. With time, the plaque becomes _____. 5. The walls of affected arteries lose their _____ and become hardened or sclerotic. 6. The atherosclerotic plaques may grow slowly and over several decades may produce a severe stenosis or may progress to total arterial _____. 7. The disease is often associated with excessive use of saturated (насичені) fats and refined _____ in the diet. 8. Emotional and genetic _____ may also increase the susceptibility to atherosclerosis.

calcified, plaque, cholesterol level, accumulation, factors, carbohydrates, elasticity, occlusion

24. Answer the questions.

1. What is the principle characteristic of atherosclerosis? 2. What does the plaque consist of? 3. May atherosclerosis be discovered in the course of a routine physical examination? What signs should a doctor pay attention to? 4. May the course of the disease be asymptomatic? 5. Are there any techniques, which allow to identify atherosclerosis? 6. What persons are more susceptible to the disease? 7. What factors may cause the disease? 8. May the development of atherosclerosis be prevented? How? 9. What does the drug therapy of atherosclerosis include?

25. Translate the sentences into English.

1. Порушення жирового обміну – одна з причин розвитку атеросклерозу. 2. При цьому стінки кровоносних судин втрачають свою еластичність.3. Факторами ризику у виникненні цієї хвороби вважаються вік, стать, спадковість, порушення обміну речовин, невідповідне харчування, паління. 4. Наслідками атеросклерозу можуть бути порушення ритму серця, коронарний тромбоз, ниркова недостатність, інфаркт міокарда, інсульт. 5. Перебіг атеросклерозу іноді безсимптомний, і лише ультразвукове дослідження допомагає виявити ураження судин. 6. Лікування хвороби полягає у призначенні відповідних ліків, вітамінів, дотриманні дієти. 7. Здоровий спосіб життя, що включає також правильний режим дня, фізичну активність, є важливим у профілактиці виникнення атеросклерозу.

26. Read the text. Make up a dialogue on information obtained.

BLOOD VESSELS DISORDERS

It is estimated that nearly a half of all death in the United States are due to the arterial disease called atherosclerosis. This condition is characterized by an accumulation of soft masses of fatty materials, particularly cholesterol, on the inside of the arterial walls. The walls of affected arteries tend to undergo degenerative changes during which they lose their elasticity and become harden or sclerotic.

Sometimes the walls of an artery is so weakened by the effects of disease that blood pressure causes a region of the artery to become dilated, forming a pulsating sac called an aneurysm. Once an aneurysm begins to form, it tends to continue increasing in size. An aneurysm may cause symptoms by pressing on nearby organs, or it may rapture and produce a great loss of blood. Common sites of aneurysm include the thoracic and abdominal aorta, and an arterial circle at the base of the brain (circle of Willis).

Phlebitis, or inflammation of a vein, is a relatively common disorder, and although it may occur in association with an injury or infection or as an aftermath of surgery, it sometimes develops for no apparent reasons.

Varicose veins are distinguished by the presence of abnormal and irregular dilation in superficial veins, particular those in the legs. This condition is usually associated with the prolonged, increased back pressure within the affected vessels due to the force of gravity, as occurs when a person stands.

27. Put questions to each paragraph to complete the dialogue related to the causes and treatment of coronary artery disease.

Student: _____?

Doctor: Coronary artery disease is the nation's leading cause of death. Although the condition may develop slowly over many years, its impact is instantaneous in nearly a third of the cases – death, without warning, is its only manifestation.

Student: _____?

Doctor: The blood vessels (coronary arteries) that provide oxygen and nutrients to the muscles of the heart are small. These arteries encircle the heart like a crown (hence the name "coronary") and send branches downward to the tip of the heart. In coronary artery disease, there is a buildup of material – cholesterol, scar tissue, calcium, and other substances – in the lining of these arteries. This accumulation, called atheromatous plaque, is the principal characteristic of atherosclerosis.

Student: _____?

Doctor: The effects can vary, from recurring chest pain called angina to congestive heart failure and heart attack.

Student: _____?

Doctor: Atherosclerosis usually occurs in a somewhat irregular fashion, so there will be considerably more narrowing at some points than at others. The roughening of the lining of the arteries over the atheromatous plaques favors the development of a blood clot.

Student: _____?

Doctor: Coronary artery disease is treated with wide range of techniques, medications, and lifestyle adjustments. The treatment of coronary artery disease has seen a great deal of innovation in recent years.
Student: _____?
Doctor: There are tests to determine if person's symptoms are due to coronary artery disease, for example, the exercise tolerance test. Other tests are available for those who have already experienced coronary artery problems, for example, scans and coronary angiogram.

Ex. 28. **Read and translate into Ukrainian the tests for licensing examination "KROK 1"**.
1. A 7-year-old boy got ill with diphtheria. On the third day he died of asphyxiation. At autopsy the mucosa of the larynx, trachea and bronchi had thickened, edematous, lustreless appearance and was covered with gray films which could be easily removed. Specify the type of laryngeal inflammation:
A. Croupous
B. Diphtheritic
C. Purulent
D. Catarrhal
E. Intermediate

2. A child has a history of hepatomegaly, hypoglycemia, seizures, especially on an empty stomach and in stressful situations. The child is diagnosed with Gierke disease. This disease is caused by the genetic defect of the following enzyme:
A. Glucose-6-phosphatase
B. Amyloid-1, 6-glycosidase
C. Phosphoglucomutase
D. Glycogen phosphorylase
E. Glucokinase

3. A public utility specialist went down into a sewer well without protection and after a while lost consciousness. Ambulance doctors diagnosed him with hydrogen sulfide intoxication. What type of hypoxia developed?
A. Hemic
B. Overload
C. Tissue
D. Circulatory
E. Respiratory

4. A child with a normal karyotype is diagnosed with cleft lip and hard palate, defects of the cardi- ovascular system, microcephaly. The child's mother suffered rubella during pregnancy. This pathology in the child may be an example of:
A. Genocopy
B. Trisomy
C. Phenocopy
D. Monosomy
E. –

5. A 28-year-old patient undergoing treatment in the pulmonological department has been diagnosed with pulmonary emphysema caused by splitting of alveolar septum by tissular tripsin. The disease is cased by the congenital deficiency of the following protein:
A. α1-proteinase inhibitor
B. α2-macroglobulin
C. Cryoglobulin

D. Haptoglobin
E. Transferrin

6. A patient with signs of osteoporosis and urolithiasis has been admitted to the endocrinology department. Blood test has revealed hypercalcemia and hypophosphatemia. These changes are associated with abnormal synthesis of the following hormone:
A. Parathyroid hormone
B. Calcitonin
C. Cortisol
D. Aldosterone
E. Calcitriol

7. During a surgery for femoral hernia a surgeon operates within the boundaries of femoral trigone. What structure makes up its upper margin?
A. Lig.inguinale
B. Arcus iliopectineus
C. Lig.lacunare
D. Lig. pectinale
E. Fascia lata

8. A 19-year-old victim has been delivered to the casualty department with a cut wound of the trapezius muscle. Which of the cervical fasciae forms a sheath for this muscle?
A. Investing layer of cervical fascia
B. Muscular part of the pretacheal layer of cervical fascia
C. Visceral part of the pretracheal layer of cervical fascia
D. Prevertebral layer of cervical fascia
E. Carotid sheath of cervical fascia

9. A patient with acne has been prescribed doxycycline hydrochloride. What recommendations should be given to the patient, while he is taking this drug?
A. Avoid long stay in the sun
B. Take with large quantity of liquid, preferably milk
C. Take before meal
D. The course of treatment should not exceed 1 day
E. Do not take with vitamins

10. A 30-year-old patient with a past history of virus B hepatitis complains of prolonged nosebleeds. What drug will be most efficient in remedying this condition?
A. Vicasolum
B. Fraxiparine
C. Folic acid
D. Dipiridamol
E. Asparcam
11. A patient has arterial hypertension. What long-acting drug from the group of calcium channel blockers should be prescribed?
A. Amlodipine
B. Octadine
C. Pyrroxanum
D. Atenolol
E. Reserpine

12. A patient has been diagnosed with ARVI. Blood serum contains immunoglobulin M. What is the stage of infection in this case?
A. Acute
B. Prodromal
C. Incubation
D. Reconvalescence
E. Carriage

13. In a dysentery patient undergoing treatment in the contagious isolation ward, a significant increase in packed cell volume has been observed (60%). What other value will be affected by this change?
A. Increasing blood viscosity
B. Increasing volume of blood circulation
C. Leukopenia
D. Thrombocytopenia
E. Increasing erythrocyte sedimentation rate (ESR)

14. A patient complains of palpitation after stress. The pulse is 104 bpm, P-Q=0,12 seconds, there are no changes of QRS complex. What type of arrhythmia does the patient have?
A. Sinus tachycardia
B. Sinus bradycardia
C. Sinus arrhythmia
D. Ciliary arrhythmia
E. Extrasystole

15. A 30-year-old patient has undergone keratoplasty in the transplantation center, cornea has been taken fron a donor, who died in a road accident. What kind of transplantation was performed?
A. Allotransplantation
B. Autotransplantation
C. Xenotransplantation
D. Explantation
E. Heterotransplantation

14. A 29-year-old male with a knife wound of neck presents with bleeding. During the initial d-bridement of the wound the surgeon revealed the injury of a vessel found along the lateral edge of the sternocleidomastoid muscle. Specify this vessel:
A. V. jugularis externa
B. V. jugularis anterior
C. A. carotis externa
D. A. carotis interna
E. V. jugularis interna

15. A histologic specimen represents an organ with walls comprised of mucous, submucous, fibrous- cartilaginousandadventitial membranes. Epithelium is multirowed and ciliated, muscular layer of mucous membrane is absent, submucous membrane contains serous-mucous glands, hyaline cartilage forms open circles. What organ has the described morphological features?
A. Trachea
B. Tertiary bronchi (segmental bronchi)
C. Secondary bronchi (lobar bronchi)
D. Terminal bronchiole
E. Larynx

16. In cancer patients who have been continuously receiving methotrexate, the target cells of tumor with time become insensitive to this drug. In this case, gene amplification of the following enzyme is observed:
A. Dihydrofolate reductase
B. Thiaminase
C. Deaminase
D. Thioredoxin reductase
E. –

17. Pancreas is known as a mixed gland. Endocrine functions include production of insulin by beta cells. This hormone affects the metabolism of carbohydrates. What is its effect upon the activity of glycogen phosphorylase (GP) and glycogen synthase (GS)?
A. It inhibits GP and activates GS
B. It activates both GP and GS
C. It inhibits both GP and GS
D. It activates GP and inhibits GS
E. It does not affect the activity of GP and GS

18. A patient has the oxyhemoglobin dissociation curve shifted to the left. What blood changes induce this condition?
A. Alkalosis, hypocapnia, temperature drop
B. Acidosis, hypercapnia, temperature rise
C. Acidosis, hypercapnia, temperature drop
D. Acidosis, hypocapnia, temperature rise
E. –

19. Administration of doxycycline hydrochloride caused an imbalance of the symbiotic intestinal microflora. Specify the kind of imbalance caused by the antibiotic therapy:
A. Dysbacteriosis
B. Sensibilization
C. Idiosyncrasy
D. Superimposed infection
E. Bacteriosis

20. A patient with signs of emotional lability that result in troubled sleep has been prescribed nitrazepam. Specify the sleep-inducing mechanism of this drug:
A. GABA-ergic system activation
B. Blockade of opiate receptors
C. Inhibition of stimulating amino acids
D. H1-histamine receptors stimulation
E. Supression of serotonergic neurotransmission.

МАТЕРІАЛИ ДЛЯ САМОКОНТРОЛЮ

А. Запитання для самоконтролю

1. What is the principle characteristic of atherosclerosis?
2. What does the plaque consist of?
3. May atherosclerosis be discovered in the course of a routine physical examination?
4. What signs should a doctor pay attention to?
5. May the course of the disease be asymptomatic?
6. Are there any techniques, which allow to identify atherosclerosis?
7. What persons are more susceptible to the disease?

8. What factors may cause the disease?
9. May the development of atherosclerosis be prevented? How?
10. What does the drug therapy of atherosclerosis include?

B. Тестові завдання

1. Insert the missing word: The cardiovascular system includes heart, blood vessels, and blood, which is __through the blood vessels by the heart.
   A. pumped
   B. produced
   C. composed
   D. supplied
   E. traveled

2. Insert the missing word: The heart is a hollow __ located in the thoracic cavity between the lungs.
   A. muscle
   B. cell
   C. tissue
   D. chamber
   E. sac

3. Insert the missing word: The heart is __ for the circulation of the blood.
   A. responsible
   B. allow
   C. depend
   D. contain
   E. pump

4. Insert the missing word: The vessels become smaller as they __farther from the heart.
   A. extend
   B. deliver
   C. carry
   D. attach
   E. separate

5. Insert the missing word: The two atria are __from each other by the interatrial septum.
   A. separated
   B. attached
   C. increased
   D. involved
   E. prevented

6. Insert the appropriate preposition: During physical exercises the amount _ blood pumped per minute increases several times.
   A. of
   B. on
   C. in
   D. at
   E. from

7. Insert the appropriate preposition: The superior vena cava and inferior vena cava carry blood _ the body to the right atrium.

A. from
B. with
C. through
D. during
E. in

8. Insert the appropriate preposition: The pericardium consists _ fibrous connective tissue.
   A. of
   B. in
   C. on
   D. from
   E. by

9. Insert the appropriate preposition: Seven large veins carry blood _ the heart.
   A. to
   B. in
   C. from
   D. at
   E. during

10. Insert the appropriate preposition: The heart makes from 60 to 72 beats _ minute.
   A. per
   B. on
   C. in
   D. of
   E. at

ЛІТЕРАТУРА

І. Основна:

1. English for Professional Purposes: Medicine = Англійська мова за професійним спрямуванням: Медицина : textbook / O.O. Pisotska, I.V. Znamenska, V.G. Kostenko, O.M. Bieliaieva. – Kyiv : AUS Medicine Publishing, 2018. – 368 p.
2. Пісоцька О.О. Англійська мова для фахівців у галузі медицини. Частина ІІ / І.В. Знаменська, О.О. Пісоцька, В.Г. Костенко. – Полтава: ТОВ "АСМІ", 2010. – 191 с.

ІІ. Додаткова:

1. Єнікеєва А.Б. Англійська мова для медиків / А.Б. Єнікеєва, І.В. Корнейко. – Харків: ХДМУ, 2000. – 64 с.
2. Марковина И.Ю. Английский язык: учебник / И.Ю. Марковина, З.К. Максимова, М.Б. Вайнштейн; под. общ. ред. И.Ю. Марковиной [4-е изд., испр. и перераб.]. – М.: ГЭОТАР-Медиа, 2010. – 368 с.
3. Українсько-англійський медичний словник Дорладна. – Львів: Наутілус, 2006. – Т. 1. – 12001; Т. 2 – 1024.
4. Чурилов Л.П. Английский язык для медиков: учебник / Л.П. Чурилов, Ю.И. Строев, В.И. Утехин [и др.]. – СПб.: ЭЛБИ-СПб, 2012. – 312 с.
5. Chabner Davi-Ellen. Medical Terminology: A Short Course. – W.B. Saunders Company, 2009. – 241 p.
6. Glendinning E. Professional English in Use. Medicine. / Glendinning E., Howard R. Cambridge University Press, 2007. – 173 p.
7. Györffy M. English for Doctors: Authentic Consulting-Room Activities for Doctors, Dentists, Students and Nurses / Maria Györffy. – Passau: Schenk Verlag, 2010. – 292 p

8. McCarter S. Oxford English for Careers: Medicine. Part 2 / S. McCarter. – Oxford: Oxford University Press, 2010. – 144 p.
9. Англо-русский медицинский энциклопедический словарь (адаптированный перевод 26-го издания Стедмана) / Главный редактор Чучалин А.Г., научн. ред. Улумбеков Э.Г., Поздеев О.К. – М.: ГЭОТАР, 1995. – 716 с.
10. Новий англо-український медичний словник / За ред. Ривкіна В.Л., Бенюмовича М.С. – К.: Арій, 2007. – 784 с.
11. Юдіна Є. Підручник англійської мови: підручник / Є. Юдіна, Л. Потяженко. – Київ: Вища школа, 1994. – 319 с.
12. Gotto Antonio M., Jr. The Cornell Illustrated Encyclopaedia of Health. – Lifeline Press – Washington, D.C. – 2002. – 1312 c.
13. Davidson`s Principles & Practice of Medicine. – Churchill Livingston, 2006. – 1392 p.
14. Davies J.J. Essentials of Medical Terminology. – Thomson Delmar Leaning, 2008. – P. 406-471.
15. Oxford Advanced Learner's Dictionary. – Oxford University Press, 2005. – 1899 c.
16. Pohl Alison. Test Your Professional English. Medical. – Penguin English, 2002. – 104 c.
17. Tortora G.J. Principles of Human Anatomy / G.J. Tortora, M. Nielsen // John Wiley and Sons, 2009. – P. 821-860.
18. Urdang L. The Bantam Medical Dictionary. – Bantam Books, 2009. – 628 p.
19. Walker R. Human Body. – Kingfisher Publications, 2006. – P. 54-55.
20. Webster's New World Medical Dictionary. – Wiley Publishing, 2008. – 480 p.

Інформаційні ресурси

English in Professional Use: “Medicine”. Reading-book / I.G. Romanko, O.O. Pisotska, I.V. Znamenska. – Режим доступу : **http://www.umsa.edu.ua/lecture/inmov/english_in_professional_use.pdf**.
Bell English Online. – Режим доступу : http://www.bellenglish.com/.
English with the BBC Service – Режим доступу : **http://www.bbc.co.uk/worldservice/learningenglish/index.shtml**
Oxford University Press. – Режим доступу : **http://www.oup.co.uk/**
OUP online. – Режим доступу: **http://www.oup.com/online/**
Oxford DNB, online references, etc. – Режим доступу :
Longman Dictionary. – Режим доступу: **http://www.ldoceonline.com/**
Internet Grammar of English (very academic). – Режим доступу : **http://www.ucl.ac.uk/internet-grammar/home.htm**
English Grammar and Writing online. – Режим доступу : **http://www.edufind.com/english/grammar/**
Good tests and exercises in English Grammar. – Режим доступу : **http://www.usingenglish.com/online-tests.html**

Методичні вказівки укладено к. філол. н., ст. викл. Мелащенко М.П.

Міністерство охорони здоров'я України
Українська медична стоматологічна академія

ЗАТВЕРДЖЕНО
на засіданні кафедри
іноземних мов з латинською мовою
та медичною термінологією
Протокол № 1
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Завідувач кафедри
к. пед. н., доц. О.М. Бєляєва

МЕТОДИЧНІ ВКАЗІВКИ ДЛЯ САМОСТІЙНОЇ АУДИТОРНОЇ ТА ПОЗААУДИТОРНОЇ РОБОТИ СТУДЕНТІВ ПІД ЧАС ПІДГОТОВКИ ДО ПРАКТИЧНОГО ЗАНЯТТЯ

Навчальна дисципліна	Англійська мова
Модуль № 1	Медична термінологія
Тема заняття	Травна система
Курс	II
Факультет	медичний № 1,2 (стн)
Кваліфікація	освітня «Магістр медицини» професійна «Лікар»
Галузь знань	22 «Охорона здоров'я»
Спеціальність	222 «Медицина»

Полтава – 2019

1. АКТУАЛЬНІСТЬ ТЕМИ

«Англійська мова» як навчальна дисципліна ґрунтується на вивченні студентами медичної біології, фізики, фізіології та латинської мови та інтегрується з цими дисциплінами; закладає основи знань з медичної термінології з перспективою їх подальшого використання у професійній діяльності; поглиблює знання спеціальних дисциплін; формує уміння застосовувати отриманні знання у професійній підготовці та складанні ліцензійного іспиту «Крок 1. Медицина» (субтест англійською мовою).

2. КОНКРЕТНІ ЦІЛІ

Засвоїти базову термінологію, що відноситься до теми «Травна система».

Виокремлювати значення автохтонних і міжнародних (греко-латинських) словотворчих елементів медичних термінів, виводити значення незнайомих слів, спираючись на їхні структурні компоненти та контекст. Демонструвати знання термінів під час інтерпретації фахових текстів на релевантну тематику.

Актуалізувати та інтерпретувати граматичні явища і синтаксичні конструкції типові для текстів, мікротекстів та тестових завдань.

Визначати смислові опори в тексті та реченнях (терміни, ключові слова, граматичні основи).

Розвити навички швидкого безперекладного читання тестових завдань до складання інтегрованого ліцензійного іспиту КРОК 1 «Медицина» з їх детальним розумінням. Інтерпретувати зміст завдань субтесту ліцензійного іспиту «Крок 1» на релевантну тематику англійською мовою.

4. БАЗОВІ ЗНАННЯ, ВМІННЯ, НАВИЧКИ, НЕОБХІДНІ ДЛЯ ВИВЧЕННЯ ТЕМИ (МІЖДИСЦИПЛІНАРНА ІНТЕГРАЦІЯ)

Назви попередніх дисциплін	Отримані навики
9. Латинська мова. 10. Англійська мова. 11. Нормальна анатомія. 12. Біологія. 13. Біохімія. 14. Мікробіологія. 15. Нормальна фізіологія. 16. Гістологія.	Розуміти та правильно вимовляти терміни, запозичені з латинської (грецької) мови. Знати основні поняття та терміни з теми. Використовувати раніше отриману інформацію в контексті певної ситуації спілкування англійською мовою за зазначеною темою. Знати граматичний матеріал, типовий для викладу теми.

4. ЗАВДАННЯ ДЛЯ САМОСТІЙНОЇ РОБОТИ ПІД ЧАС ПІДГОТОВКИ ДО ЗАНЯТТЯ

4.1. Перелік основних термінів, які повинен засвоїти студент при підготовці до заняття:

stomach ['stʌmək] шлунок
pancreas ['pæŋkrɪəs] підшлункова залоза
gallbladder ['gɔ:l"blædə] жовчний міхур
propel [prə'pel] проштовхувати; рухати
digestive [dɪ'ʤestɪv] травний, такий, що стосується травлення
digestion [dɪ'ʤesʧən] травлення, травлення їжи; засвоєння їжи
chew [ʧu:] жувати, пережовувати
saliva [sə'laɪvə] слина
pharynx ['færɪŋks] глотка
jejunum [ʤɪ'ʤu:nəm] порожня кишка
ileum ['ɪlɪəm] клубова кишка
exist [ɪg'zɪst] існувати, бути
except [ɪk'sept] виключаючи, окрім, за винятком
enzyme ['enzaɪm] фермент
caecum (cecum) ['si:kəm] сліпа кишка
colon ['kəʊlən] ободова кишка, товста кишка
rectum ['rektəm] пряма кишка
indigestive ["ɪndɪ'ʤestɪv] неперетравлений

esophagus [l:'sƟfqgqs] стравохід
accessory [q'ksɕsqrl] допоміжний, додатковий
mucous ['mju:kqs] слизовий
mucus ['mju:kqs] слиз
dilate [dəl'lɕlt] розширювати
reduce [rl'dju:s] перетворюватиж (тут) зменшувати
semi-liquid ['sɕml'llkwld] напіврідкий
release [rl'll:s] виділяти
duodenum ["dju:ou'dlnqm] дванадцятипала кишка
feces ['fl:sl:z] кал, фекалії, екскременти
vermiform ['vq:mlfƟ:m] червоподібний
appendix [q'pɕndlks] відросток, апендикс
ingest [ln'Gɕst] поглинати, проковтнути, заковтнути
masticate ['mχstlkɕlt] жувати, подрібнювати
digest [dl'Gɕst] перетравлювати
undigested ['Ʌndl'Gɕstld] неперетравлений
matter ['mχtq] річ, субстанція
propulsion [prɕ'pɅlS(q)n] просування вперед, рух вперед; поступальний рух

4.2. Теоретичні питання до заняття:

3. What is Present Simple?
4. What is Active voice?

4.3. Практичні завдання, які виконуються на занятті:

8. Вивчення лексико-фонетичного та граматичного матеріалу з теми.
9. Читання та переклад тексту.
10. Виконання лексичних вправ.
11. Відповіді на запитання з теми.
12. Анотування тексту з теми.
13. Складання діалогів за темою.
14. Надання інформації за темою, що вивчається.

6. ЗМІСТ ТЕМИ

WORD-BUILDING

Ex. 1. Familiarize yourself with the following material:
Suffix of Adjectives:

-ful (full of; characterized by; tending to; able to)
use *користь* – useful *корисний*
pain *біль* – painful *болючий*

Ex. 2. Read and translate the following words:
Careful; powerful; harmful; helpful; painful; useful; awful.

GRAMMAR

Ex. 1. Familiarize yourself with the data of the following tables:

SIMPLE TENSES (Affirmative Form, Active Voice)

Tense	Form of the Verb	Example
Present Simple	**V** (the third person singular **+ -s,-es)**	I (you, we, they) **write** He (she, it) **writes**
Past Simple	**V2**	I (we) He (she, it) } **worked (wrote)** They (you)
Future Simple	**will (shall**: after I or we**) + V**	I (we) **shall** He (she, it) **will** } **write** They (you) **will**

Ex. 2. Put the following verbs into Past and Future Simple Tenses:

Prevent; strengthen; increase; comprise; provide; have; take; do; go; make; leave.

Ex. 3. Read and translate the following sentences:

1. I get up at 7 o'clock. 2. He brushes his teeth. 3. This student learns the main sciences. 4. She often goes to the hospital. 5. We came from Spain. 6. I live in Oxford. 7. I saw you yesterday. 8. I spoke to him. 9. I'll give you my book tomorrow. 10. The Health Network will comprise a great number of clinics. 11. This University trains medical specialists. 12. Your doctor will write a prescription for you. 13. Some people died of heart diseases. 14. On average Ukrainian men live to the age of 74.

Ex. 4. Tell about yourself and your friend(s) in Present, Past and Future Simple Tenses using the following table:

Every morning Yesterday Tomorrow	to get up at 6 o'clock to do morning exercises to wash with cold water to brush one's teeth to dress to comb one's hair before a looking-glass to make the bed to have breakfast to leave the room to go to the Academy to take a trolleybus to go on foot.
Every day Some days ago In two weeks	to come to the Academy by half past 8. to be present at the lectures and practical classes. to make abstracts at the lectures. to read texts at the English lessons. to do exercises. to work in laboratory. to go home.
In the evening Next month Last week	to prepare for the classes to do some exercises to read medical literature to make abstracts to visit friend to watch TV to go to bar to go to bed

Ex. 5. Put the verbs into correct tense-forms and translate the sentences into Ukrainian:

1. Some clinics (to provide) specialized care. 2. This doctor (to treat) the patients with chronic diseases. 3. Marry (to visit) the polyclinic yesterday. 4. This physician (to examine) many patients next Monday. 5. She (to take) the course of treatment in the rest home last month. 6. Medical specialists (to pay) much attention to the health protection of mother and child. 7. They (to build) new prenatal clinics in Ukraine in 5 years. 8. Mike (to need) periodic psychiatric attention. 9. Medical Institute (to train) future doctors. 10. As a rule doctors' training (to take) six years.

Ex. 6. Read VOCABULARY and memorize new words. Compose 2-3 sentences with them.

Ex. 7. Read the words and translate them into Ukrainian as quickly as you can.

Propulsion, except, masticate, undigested, matter, digest, digestion, ingest, indigestive, propel, chew, reduce, dilate, release, salivary, esophagus, major, pharynx, abdomen, liquid, segment, duodenum, jejunum, ileum, caecum, rectum.

Ex. 8. Translate the word-combinations and sentences into English. Compose 2-3 your snetences.

1. **mouth:** Відкрийте рота. Тверде та м'яке піднебіння утворюють склепіння (roof) порожнини рота.
2. **stomach:** Нижня частина шлунка. Шлунок – внутрішній порожнистий орган. Шлунок складається з чотирьох оболонок.
3. **tongue:** Язик – орган смаку. У хворого обкладений язик. Дозвольте оглянути язик.
4. **intestine:** Товстий кишечник поділяється на три частини. Тонкий і товстий кишечники знаходяться у черевній порожнині.
5. **through:** Проходити по судинах. Кров проходить по артеріях. Їжа проходить крізь глотку до стравоходу.

Ex. 9. Read the following text:

DIGESTIVE SYSTEM

The digestive system consists of many parts. Among them are the oral cavity, esophagus, stomach, small and large intestines, the liver, the pancreas, gallbladder and others.

The food we eat is propelled through the digestive tract by muscular contractions. The digestive tract is also called the alimentary tract or alimentary canal. The term gastrointestinal tract technically only refers to the stomach and intestines but is often used as a synonym of the digestive tract.

The first division of the digestive tract is the mouth, or oral cavity. Important structures of the oral cavity are the teeth, the tongue, the soft and hard palates, and salivary glands. Digestion begins when the person chews the food. The food is broken into smaller pieces by the teeth and is mixed with saliva secreted by the salivary glands.

From the mouth food passes through the pharynx to the esophagus. The major accessory structures of the pharynx and the esophagus are mucous glands.

The esophagus opens into the stomach. It rests in the upper abdomen. It is a dilated portion of the digestive tract. The stomach receives food from esophagus, and its mixing action reduces the food to a semi-liquid mixture. The stomach walls contain many glands from which acid and enzymes are released into the stomach and mixed with ingested food.

The stomach opens into the small intestine. The small intestine is a thin-walled tube approximately 6.5 meters long. It is located in the lower and central portions of the abdominal and pelvic cavities. It is composed of the duodenum, jejunum, and ileum. The first segment of the small intestine is the duodenum. The major accessory structures in this segment of the digestive tract are the liver, the gallbladder, and the pancreas. The next segment of the small intestine is the jejunum. Small glands exist along its length, and it is the major site of absorption. The last segment of the small intestine is the ileum, which is similar to the jejunum except that fewer digestive enzymes and more mucus are secreted and less absorption occurs in the ileum.

The last section of the digestive tract is the large intestine. It is divided into cecum, colon, and rectum. Its major accessory glands secrete mucus. It absorbs water and salts and concentrates indigested food into feces. The first segment is the cecum, with the attached vermiform appendix. The cecum is followed by colon and rectum. The rectum joints the anal canal, which ends at the anus. The functions of the digestive system are to ingest food, masticate the food, propel the food through the digestive tract, add secretions to the food and digest the food; and absorb water, electrolytes, and other nutrients from the digested food. Once these useful substances are absorbed, they are transported through the circulatory system to cells where they are used.

Undigested matter is moved out of the digestive tract and excreted through the anus. The processes of propulsion, secretion, and absorption are regulated by elaborate nervous and hormonal mechanisms.

Ex. 10. Translate the following words and word-combinations into English:

Глотка; стравохід; шлунок; підшлункова залоза; товстий кишечник; жовчний міхур; сліпа кишка; пряма кишка; товста кишка; порожня кишка; клубова кишка; дванадцятипала кишка; зуби; язик; тверде піднебіння; слинні залози; знаходитися у нижній частині черевної порожнини; напівридка суміш; тонкостінна трубка; проходити уздовж; переноситись по кровоносній системі.

Ex. 11. Describe the structure of the alimentary canal and related system using the data of the following table:

Alimentary Canal	Related System
mouth	teeth
pharynx	tongue
esophagus	salivary glands
stomach	hard and soft palates
small intestine (duodenum, jejunum, ileum)	liver
large intestine (cecum, colon, rectum)	gallbladder
	pancreas

Ex. 12. Answer the following questions:

1. What does the digestive system consist of? 2. What is the food propelled through the digestive tract by? 3. What is the first division of the digestive tract? 4. What are there in the oral cavity? 5. Where does the food pass from the mouth? 6. What is the esophagus? 7. What is the function of the stomach? 8. What parts is small intestine composed of? 9. What are the major accessory structures in the first segment of the small intestine? 10. What is the functional difference between ileum and jejunum? 11. What is large intestine divided into? 12. What are the major functions of the digestive system?

Ex. 13. Read the following text and compose 3-4 short dialogues:

PORTIONS OF THE DIGESTIVE SYSTEM

SMALL INTESTINE

The small intestine consists of three portions: the duodenum, the jejunum, and the ileum. The entire small intestine is approximately 6 m long; the duodenum is approximately 25 cm long (the term duodenum means 12, suggesting that is 12 inches long); the jejunum, constituting approximately two fifths of the total length of the small intestine, is approximately 2.5 m long, and the ileum, constituting three fifths of the small intestine, is approximately 3.5 m long. Two major glands, the liver and pancreas, are associated with the duodenum.

GALLBLADDER

The gallbladder is a saclike structure on the inferior surface of the liver that is approximately 8 cm long and 4 cm wide. Three layers form the gallbladder wall: an inner mucosa folded into rugae that allow the gallbladder to expand; a muscularis of smooth muscle that allows the gallbladder to contract; and outer covering of connective tissue. The gallbladder is connected to the common bile by the cystic duct.

PANCREAS

The pancreas is a complex organ composed of both endocrine and exocrine tissues that perform several functions. The pancreas consists of a head, a body, and a tail, which extends to the spleen.

The endocrine portion of the pancreas consists of pancreatic islets (islets of Langerhans). The islet cells produce insulin and glucagons, which are very important in controlling blood levels of nutrients such as glucose and amino acids, and somatostatin, which regulates insulin secretion.

The exocrine portion of the pancreas consists of acini (grapes), which produce digestive enzymes. The acini connect to a duct system that eventually forms the pancreatic duct, which empties into the duodenum.

LARGE INTESTINE

The large intestine consists of the cecum, colon, rectum, and anal canal. The cecum is the proximal end of the large intestine and is the portion where the large and small intestines meet. The colon consists of four portions. The mucosal lining of the large intestine consists of simple columnar epithelium. It has numerous straight tubular glands. The rectum is a straight, muscular tube. It begins at the termination of the sigmoid colon and ends at the anal canal. The last 2 to 3 cm of the digestive tract is the anal canal. It begins at the inferior end of the rectum and ends at the anus. The smooth muscle layer of the anal canal is even thicker than that of the rectum and forms the internal anal sphincter and external anal sphincter.

14. Retell the text "PORTIONS OF THE DIGESTIVE SYSTEM". The expressions below may be useful for you.

1. _____ is a part of the digestive system.
2. It consists of _____.
3. _____ is located _____.
4. Its function is to _____.

Ex. 15. Insert the missing words given below:

THE ALIMENTARY TRACT

The alimentary tract is a musculomembraneous canal about 8,5 meters in length. It _ from the oral cavity to the anus. It consists of the mouth, pharynx, _, stomach, small intestine, and large intestine. The liver with gallbladder and _ are the large glands of the alimentary tract.

The first division of the alimentary tract is formed by the mouth. Important structures of the mouth are the _ and the tongue, which is the organ of taste. The soft and hard _ and the salivary glands are also in the oral cavity.

From the mouth food passes through the _ to the esophagus and then to the stomach.

The stomach is a dilated portion of the alimentary canal. It is in the upper part of the abdomen under the diaphragm. It measures about 21-25 cm in length. It has a capacity of from 2.14 to 4.28 litres.

The small intestine is a thin-walled muscular tube about 6.5 meters long. It is located in the lower and central parts of the _ and pelvic cavities. The small intestine is composed of the duodenum, jejunum, and ileum. The large intestine is about 1.5 meters long. It is divided into caecum, _ , and rectum.

The liver is the largest _ in the human body. It is in the right upper part of the abdominal cavity under the diaphragm. The gallbladder is a hollow _ lying on the lower surface of the liver. The pancreas is a long thin gland lying under and behind the stomach.

palates; esophagus; gland; pharynx; teeth; colon; pancreas; extends; abdominal; sac.

Ex. 16. Answer the following questions:

What organ is located:

1. in the abdominal cavity under the diaphragm? 2. in the lower and central portions of the abdominal and pelvic cavities? 3. in the right upper part of the abdominal cavity under the diaphragm? 4. in abdominal cavity under and behind the stomach? 5. within the abdominal cavity on the lower surface of the liver?

Ex. 17. Here is an extract from a textbook description of how to examine the abdomen. Read it. Then complete the case history below.

EXAMINATION OF THE ABDOMEN

Note if the abdomen is distended by fluid or gas. The presence of fluid can be confirmed by demonstrating shifting dullness: percuss, or tap, first with the patient lying supine – flat on their back; then ask the patient to lie on one side and percuss again. If fluid is present, the dull note heard on percussion moves. Palpate each region, feeling for tenderness – pain when touched, or masses – palpable enlargement of tissue. Note also any guarding or rigidity, shown by contraction of the abdominal muscles. Guarding may be due to tenderness or anxiety and can be reduced if the patient is persuaded to relax. Rigidity, however, is constant and is due to peritoneal irritation. Rebound tenderness is pain when the palpating hand is suddenly removed. It is a sign of peritonitis. Listen for bowel sounds.

Case History 7

Physical examination revealed a thin girl with slight pallor. She was not obviously dehydrated. The temperature was 38^0C, pulse 100/min, blood pressure 110/80 mmHg. Examination of the rest of the cardiovascular and respiratory systems was normal. The abdomen was not _____. There was generalized _____, which was most marked in the right lower _____ and was associated with _____ but not _____. There was no rebound _____ and no _____ were felt. _____ sounds were reduced.

18. Translate the sentences into Ukrainian.

1. Травна система складається з ротової порожнини, глотки, стравоходу, шлунка, тонкої та товстої кишок, печінки, підшлункової залози. 2. Стінки більшості порожнистих органів травної системи складаються з чотирьох оболонок: внутрішньої – слизової, підслизового прошарку, м'язової оболонки та зовнішньої – сполучнотканинної оболонки (адвентиції), або серозної оболонки. 3. Слизова оболонка покрита епітелієм різного типу: багатошаровим лускатим (ротова порожнина, глотка, стравохід, кінцевий відділ прямої кишки); перехідним (сечові шляхи); одношаровим стовпчатим (шлунок, тонка кишка, товста кишка, трахея). 4. У тих місцях, де слизова оболонка збирається у складки (стравохід, шлунок, тонка та товста кишки), під її м'язовою пластинкою розміщується шар сполучної тканини, який називають підслизовим прошарком (*tela submucosa*). 5. Зовні від м'язової оболонки розташовується зовнішня оболонка (*tunica adventitia*), що складається з волокнистої тканини. 6. Стравохід – циліндричної форми трубка, 25-30 см завдовжки та 2,5-3 см завширшки, яка починається на рівні VI шийного хребця і на рівні XI грудного хребця зліва переходить у шлунок. 7. Стінка дванадцятипалої кишки складається з трьох оболонок: серозної, м'язової та слизової. 8. Дванадцятипала кишка разом із підшлунковою залозою та печінкою посідають центральне місце у функції травлення.

Ex. 19. **Read and translate into Ukrainian the tests for licensing examination "KROK 1"**.

1. A patient diagnosed with focal tuberculosis of the upper lobe of the right lung had been taking isoniazid as a part of combination therapy. After some time, the patient reported of muscle weakness, decreased skin sensitivity, blurred vision, impaired motor coordination. Which vitamin preparation should be used to address these phenomena?

A. Vitamin B6
B. Vitamin A
C. Vitamin D
D. Vitamin B12
E. Vitamin C

2. A 60-year-old male patient has a 9-year history of diabetes and takes insulin Semilente for the correction of hyperglycemia. 10 days ago he began taking anaprilin for hypertension. One hour after administration of the antihypertensive drug the patient developed hypoglycemic coma. What is the mechanism of hypoglycemia in case of anaprilin use?

A. Inhibition of glycogenolysis
B. Reduction of glucagon half-life
C. Increase of insulin Semilente half-life
D. Increase of bioavailability of insulin Semilente
E. Decrease in glucose absorption

3. Pterin derivatives (aminopterin and methotrexate) are the inhibitors of dihydrofolate reductase, so that they inhibit the regeneration of tetrahydrofolic acid from dihydrofolate. These drugs inhibit the intermolecular tranfer of monocarbon groups, thus suppressing the synthesis of the following polymer:

A. DNA
B. Protein
C. Homopolysaccharides
D. Gangliosides
E. Glycosaminoglycans

4. A child with suspected tuberculosis was given Mantoux test. After 24 hours the site of the allergen injection got swollen, hyperemic and painful. What are the main components that determine such response of the body?

A. Mononuclear cells, T-lymphocytes and lymphokines
B. Granulocytes, T-lymphocytes and IgG
C. Plasma cells, T-lymphocytes and lymphokines
D. B-lymphocytes, IgM
E. Macrophages, B-lymphocytes and monocytes

5. Hemoglobin catabolism results in release of iron which is transported to the bone marrow by a certain transfer protein and used again for the synthesis of hemoglobin. Specify this transfer protein:

A. Transferrin (siderophilin)
B. Transcobalamin
C. Haptoglobin
D. Ceruloplasmin
E. Albumin

6. A 12-year-old boy has been hospitalized for suspected food poisoning. The fecal samples were inoculated on the Endo agar, which resulted in growth of a large number of colorless colonies. What microorganism is most likely to be EXCLUDED from the list of possible causative agents of the disease?

A. Escherichia coli
B. Salmonella enteritidis
C. Proteus vulgaris
D. Pseudomonas aeruginosa
E. Yersinia enterocolitica

7. A 23-year-old patient has been admitted to a hospital with a craniocerebral injury. The patient is in a grave condition. Respiration is characterized by prolonged convulsive inspiration followed by a short expiration. What kind of respiration is it typical for?

A. Apneustic

B. Gasping breath
C. Kussmaul's
D. Cheyne-Stokes
E. Biot's

8. It has been experimentally proven that the excitation of the motor neurons of flexor muscles is accompanied by the inhibition of the motor neurons of extensor muscles. What type of inhibition underlies this phenomenon?
A. Reciprocal
B. Inhibition after excitation
C. Pessimal
D. Feedback
E. Lateral

9. A 3-year-old boy with pronounced hemorrhagic syndrome doesn't have anti- hemophilic globulin A (factor VIII) in the blood plasma. Hemostasis has been impaired at the following stage:
A. Internal mechanism of prothrombinase activation
B. External mechanism of prothrombinase activation
C. Conversion of prothrombin to thrombin
D. Conversion of fibrinogen to fibrin
E. Blood clot retraction

10. A patient got a gunshot wound of hip which damaged the sciatic nerve. Any impact on the affected limb causes severe, excruciating pain. What mechanism of pain is most likely in this case?
A. Causalgic
B. Reflex
C. Phantom
D. Endorphin hypofunction
E. Enkephalin hypofunction

11. A 60-year-old patient with a long hi- story of stenocardia takes coronarodilator agents. He has also been administered acetylsalicylic acid to reduce platelet aggregation. What is the mechanism of antiplatelet action of acetylsalicylic acid?
A. It reduces the activity of cyclooxygenase
B. It reduces the activity of phosphodi- esterase
C. It enhances the activity of platelet adenylate cyclase
D. It enhances the synthesis of prostacyclin
E. It has membrane stabilizing effect

12. A patient with bronchial asthma has developed acute respiratory failure. What kind of respiratory failure occurs in this case?
A. Obstructive disturbance of alveolar ventilation
B. Restrictive ventilatory defect
C. Perfusion
D. Diffusion
E. Dysregulation of alveolar ventilation

13. On the fifth day after the acute blood loss a patient has been diagnosed with hypochromic anemia. What is the main mechanism of hypochromia development?
A. Release of immature red blood cells from the bone marrow

B. Impaired iron absorption in the intestines
C. Increased destruction of red blood cells in the spleen
D. Impaired globin synthesis
E. Increased excretion of body iron

14. A patient with diabetes developed a diabetic coma due to the acid-base imbalance. Specify the kind of this imbalance:
A. Metabolic acidosis
B. Metabolic alkalosis
C. Respiratory acidosis
D. Gaseous alkalosis
E. Non-gaseous alkalosis

15. A girl receives antibiotics of the penicillin group for acute bronchitis. On the third day of treatment she developed allergic dermatitis. Which drug should be administered?
A. Loratadine
B. Cromolyn sodium
C. Beclomethasone
D. Ephedrine hydrochloride
E. Levamisole

16. A female patient has been diagnosed with cervical erosion, which is a precancerous pathology. What defense mechanism can prevent the development of a tumor?
A. Increase in natural killer level (NK- cells)
B. High-dose immunological tolerance
C. Increase in the activity of lysosomal enzymes
D. Simplification of the antigenic structure of tissues
E. Low-dose immunological tolerance

17. Microscopy of the coronary artery of a dead 53-year-old patient revealed luminal occlusion due to a fibrous plaque with some lipids. The most likely form of atherosclerosis in this case is:
A. Liposclerosis
B. Lipidosis
C. Prelipid stage
D. Atheromatosis
E. Ulceration

18. Autopsy of the patient revealed bone marrow hyperplasia of tubular and flat bones (pyoid marrow), splenomegaly (6 kg) and hepatomegaly (5 kg), enlargement of all lymph node groups. What disease are the identified changes typical for?
A. Chronic myelogenous leukemia
B. Chronic lymphocytic leukemia
C. Multiple myeloma
D. Polycythemia vera
E. Hodgkin’s disease

19. As a result of an injury a patient cannot extend his arm at the elbow. This may cause abnormal functioning of the following muscle:
A. Musculus triceps brachii
B. Musculus infraspinatus
C. Musculus levator scapulae
D. Musculus teres major

E. Musculus subscapularis

20. A man sitting with his eyes closed, undergoes electroencephalography. What rhythm will be recorded on the EEG if there is an audible signal?

A. Beta rhythm
B. Theta rhythm
C. Delta rhythm
D. Alpha rhythm
E. Gamma rhythm

МАТЕРІАЛИ ДЛЯ САМОКОНТРОЛЮ

А. Запитання для самоконтролю

1. What does the digestive system consist of?
2. What is the food propelled through the digestive tract by?
3. What is the first division of the digestive tract?
4. What are there in the oral cavity?
5. Where does the food pass from the mouth?
6. What is the esophagus?
7. What is the function of the stomach?
8. What parts is small intestine composed of?
9. What are the major accessory structures in the first segment of the small intestine?
10. What is the functional difference between ileum and jejunum?
11. What is large intestine divided into?
12. What are the major functions of the digestive system?

Б. Тестові завдання

1. Insert the missing word: The smooth muscle layer of the anal canal __ the internal anal sphincter and external anal sphincter.

A. forms
B. produces
C. empties
D. performs
E. transports

2. Insert the missing word: The stomach is a___ portion of the alimentary canal.

A. dilated
B. thin-walled
C. straight
D. proximal end
E. tubular

3. Insert the missing word: The pancreas is a long thin __ lying under and behind the stomach.

A. gland
B. tube
C. lobe
D. layer
E. portion

4. Insert the missing word: The upper portion of the stomach ___first, pushing the more liquid material into small intestine.

A. contracts
B. converts

C. covers
D. comprises
E. travels

5. Insert the missing word: Two major glands, the liver and pancreas, are ___with the duodenum.
A. associated
B. connected
C. formed
D. regulated
E. lined

6. Insert the missing word: The esophagus ____food from the pharynx to the stomach.
A. transports
B. masticates
C. transportation
D. mastication
E. opens

7. Insert the missing word: The major stomach functions are to __and mix the ingested food.
A. store
B. storage
C. mastication
D. masticates
E. serves

8. Insert the missing word: The amount of time food ___in the stomach depends on the number of factors, including the type and volume of food.
A. remains
B. exists
C. empties
D. produces
E. reduces

9. Insert the missing word: Undigested matter is moved out of the digestive tract and ___through the anus.
A. excreted
B. undigested
C. propelled
D. released
E. reduced

10. Insert the missing word: The functions of the stomach are being ___rapidly during the treatment.
A. restored
B. observed
C. extended
D. connected
E. regulated

ЛІТЕРАТУРА

І. Основна:

1. English for Professional Purposes: Medicine = Англійська мова за професійним спрямуванням: Медицина : textbook / O.O. Pisotska, I.V. Znamenska, V.G. Kostenko, O.M. Bieliaieva. – Kyiv : AUS Medicine Publishing, 2018. – 368 p.
2. Пісоцька О.О. Англійська мова для фахівців у галузі медицини. Частина ІІ / І.В. Знаменська, О.О. Пісоцька, В.Г. Костенко. – Полтава: ТОВ "АСМІ", 2010. – 191 с.

ІІ. Додаткова:

1. Єнікеєва А.Б. Англійська мова для медиків / А.Б. Єнікеєва, І.В. Корнейко. – Харків: ХДМУ, 2000. – 64 с.
2. Марковина И.Ю. Английский язык: учебник / И.Ю. Марковина, З.К. Максимова, М.Б. Вайнштейн; под. общ. ред. И.Ю. Марковиной [4-е изд., испр. и перераб.]. – М.: ГЭОТАР-Медиа, 2010. – 368 с.
3. Українсько-англійський медичний словник Дорладна. – Львів: Наутілус, 2006. – Т. 1. – 12001; Т. 2 – 1024.
4. Чурилов Л.П. Английский язык для медиков: учебник / Л.П. Чурилов, Ю.И. Строев, В.И. Утехин [и др.]. – СПб.: ЭЛБИ-СПб, 2012. – 312 с.
5. Chabner Davi-Ellen. Medical Terminology: A Short Course. – W.B. Saunders Company, 2009. – 241 p.
6. Glendinning E. Professional English in Use. Medicine. / Glendinning E., Howard R. Cambridge University Press, 2007. – 173 p.
7. Györffy M. English for Doctors: Authentic Consulting-Room Activities for Doctors, Dentists, Students and Nurses / Maria Györffy. – Passau: Schenk Verlag, 2010. – 292 p
8. McCarter S. Oxford English for Careers: Medicine. Part 2 / S. McCarter. – Oxford: Oxford University Press, 2010. – 144 p.
9. Англо-русский медицинский энциклопедический словарь (адаптированный перевод 26-го издания Стедмана) / Главный редактор Чучалин А.Г., научн. ред. Улумбеков Э.Г., Поздеев О.К. – М.: ГЭОТАР, 1995. – 716 с.
10. Новий англо-український медичний словник / За ред. Ривкіна В.Л., Бенюмовича М.С. – К.: Арій, 2007. – 784 с.
11. Юдіна Є. Підручник англійської мови: підручник / Є. Юдіна, Л. Потяженко. – Київ: Вища школа, 1994. – 319 с.
12. Gotto Antonio M., Jr. The Cornell Illustrated Encyclopaedia of Health. – Lifeline Press – Washington, D.C. – 2002. – 1312 c.
13. Davidson`s Principles & Practice of Medicine. – Churchill Livingston, 2006. – 1392 p.
14. Davies J.J. Essentials of Medical Terminology. – Thomson Delmar Leaning, 2008. – P. 406-471.
15. Oxford Advanced Learner's Dictionary. – Oxford University Press, 2005. – 1899 c.
16. Pohl Alison. Test Your Professional English. Medical. – Penguin English, 2002. – 104 c.
17. Tortora G.J. Principles of Human Anatomy / G.J. Tortora, M. Nielsen // John Wiley and Sons, 2009. – P. 821-860.
18. Urdang L. The Bantam Medical Dictionary. – Bantam Books, 2009. – 628 p.
19. Walker R. Human Body. – Kingfisher Publications, 2006. – P. 54-55.
20. Webster's New World Medical Dictionary. – Wiley Publishing, 2008. – 480 p.

Інформаційні ресурси

English in Professional Use: "Medicine". Reading-book / I.G. Romanko, O.O. Pisotska, I.V. Znamenska. – Режим доступу : **http://www.umsa.edu.ua/lecture/inmov/english_in_professional_use.pdf**.

Bell English Online. – Режим доступу : http://www.bellenglish.com/.

English with the BBC Service – Режим доступу :
http://www.bbc.co.uk/worldservice/learningenglish/index.shtml
Oxford University Press. – Режим доступу : **http://www.oup.co.uk/**
OUP online. – Режим доступу: **http://www.oup.com/online/**
Oxford DNB, online references, etc. – Режим доступу :
Longman Dictionary. – Режим доступу: **http://www.ldoceonline.com/**
Internet Grammar of English (very academic). – Режим доступу :
http://www.ucl.ac.uk/internet-grammar/home.htm
English Grammar and Writing online. – Режим доступу :
http://www.edufind.com/english/grammar/
Good tests and exercises in English Grammar. – Режим доступу :
http://www.usingenglish.com/online-tests.html

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