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А 64 АНГЛИЙСКИЙ ЯЗЫК: Методическая разработка для чтения специальных текстов для студентов 1 курса медицинского факультета специальности «Педиатрия» / Сост. Л.М. Лукина. Бишкек: КРСУ, 2013. 67 с.

Настоящая методическая разработка предназначена для студентов 1 курса медицинского факультета по специальности «Педиатрия».

Целью данной методической разработки является развитие у студентов языковой (владение языковым материалом), тематической (система знаний профессиональных особенностей и реалий, умение пользоваться этим в сферах делового общения), социокультурной (поведенческая, этикетная) и коммуникативной компетенциями. Что, в свою очередь, является основой иноязычной компетентности будущего специалиста медицинского профиля.

Методическая разработка состоит из семи разделов (Units), каждый из которых имеет определенную структуру: предтекстовые упражнения (для тренировки лексического минимума); базовый текст для изучающего чтения; послетекстовые вопросно-ответные и диалоговые задания для развития навыков устной речи; лексико-грамматические упражнения для тренировки ряда грамматических явлений; дополнительные тексты для развития навыков различных видов чтения и составления аннотаций; вопросы в конце каждого раздела по дополнительным текстам. В конце каждого раздела предлагаются аутентичные тексты и задания к ним, предусматривающие межкультурное общение в формате научной и практической работы врача-педиатра.

АНГЛИЙСКИЙ ЯЗЫК

Методическая разработка для чтения специальных текстов для студентов 1 курса медицинского факультета специальности «Педиатрия»

Unit 1. Pediatrics

1. Read and learn by heart: ACTIVE VOCABULARY

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 branch n раздел

 а branch of medicine раздел

 медицины

 to deal (dealt, dealt) with smth

 иметь дело с чем-л., заниматься

 чем-л.; рассматривать (проблему, вопрос)

 аge n возраст

 infant n младенец (ребенок до

 одного года)

 neonate syn. newborn baby n новорожденный

 adolescent . подросток; а подростковый, пубертатный

 obvious a очевидный

maturational *a* относящийся к созреванию congenital *a* врожденный genetic *a* генетический issue *n* вопрос inherited *а* наследственный recognize v распознавать, узнавать undergo v проходить, подвергаться specialty *n* специальность subspecialty *n* узкая специальность respect *n* отношение, касательство pattern n модель, шаблон

2. Translate the word combinations with the given key-words:

to deal with: to deal with the medical care of infants, children, and adolescents; pediatric cardiologists deal with the heart conditions of children;

adolescent: the medical care of adolescents; adolescent medicine; specialists or sub-specialists in adolescent medicine; the pattern of diseases in adolescents; **subspecialty:** subspecialty of adult medicine; adolescent medicine is a growing subspecialty; neonatology is another major subspecialty, which is unique to pediatrics; undergo further training in subspecialties;

difference: a major difference; the obvious body size differences; the difference between normal variants and what is actually pathologic; a slight semantic difference.

3. Define the part of speech and translate into Russian:

differ, difference, different, differently; infect, infectious, infective, infected; mature, maturation, maturity; inherit, inherited, inheritance; pediatrics, pediatric, pediatrician.

4. Read and translate:

the upper age limit; to differ in many respects; congenital defects; many inherited diseases; the period of the greatest growth; practitioners of internal medicine; the medical care of newborn babies; years of training and experience.

5. Match Russian and English equivalents:

1. congenital heart defects	а) детство
2. growing subspecialty	b) основное различие
3. adolescent medicine	с) генетическое изменение
4. depending on the country	d) врожденные пороки сердца
5. maturation of the various organ	е) соответствующая специальность
systems	во взрослой медицине
6. genetic variance	f) в зависимости от страны
7. a major difference	g) вопросы, связанные с развитием
8. relevant adult specialty	h) подростковая медицина
9. childhood	i) созревание систем различных
	органов
10. developmental issues	j) развивающаяся узкая специаль-
	ность

6. Read and translate the following sentences:

1. In the 9th century the famous Persian physician Rhazes (Muhammad ibn Zakarīya Rāzi) wrote "The Diseases of Children", the first book to deal with pediatrics as an independent field of medicine. 2. Pediatrics as a separate area of medical practice in the Western world largely began in the nineteenth century. 3. In 1834 the first children's hospital was set up in Petersburg. 4. The Hospital for Sick Children in Great Ormond Street (London) was founded in 1852, and is probably the oldest children's hospital in the English-speaking world. 5. In the USA, the first similar institutions were the Children's Hospital (1869). 6. Many outstanding Russian scientists emphasized the extreme necessity of the improvement of child care organization in Russia. 7. N. Filatov is considered the founder of Russian clinic pediatrics. 8. The training of pediatricians varies considerably across the world.

7. Read and translate the text. Make the plan of the text using key-words.

Pediatrics

The word *pediatrics* and its cognates mean *healer of children*; they derive from two Greek words: $\pi\alpha \tilde{i} dh_{(pais = child)}$ and $i\alpha \tau \rho \delta \varsigma$ (*iatros* = doctor or healer). Pediatrics (also spelled paediatrics) is the branch of medicine that deals with the medical care of infants, children, and adolescents. The upper age limit ranges from age 14 to 18, depending on the country. A medical practitioner who specializes in this area is known as a pediatrician (also spelled peadiatrician).

Pediatrics differs from adult medicine in many respects. The obvious body size differences are paralleled by maturational changes. The small body of an infant or neonate is substantially different physiologically from that of an adult. Congenital defects, genetic variance, and developmental issues are of greater concern to pediatricians than they often are to adult physicians. Infectious diseases, immunizations, and many inherited diseases are also dealt with primarily by pediatricians.

Childhood is the period of the greatest growth, development and maturation of various organ systems in the body. Years of training and experience (above and beyond basic medical training) go into recognizing the difference between normal variants and what is actually pathologic.

Specialist pediatricians may undergo further training in subspecialties. Practising a subspecialty in pediatrics is similar in some respects to practising the relevant adult specialty, but a major difference is in the pattern of disease. Typically, diseases commonly seen in children are rare in adults (*e.g.* bronchiolitis), and those seen in adults are rare in children (*e.g.* coronary artery disease). Hence, pediatric cardiologists deal with the heart conditions of children, particularly congenital heart defects, and pediatric oncologists most often treat types of cancer that are relatively common in children (*e.g.* certain leukemias, lymphomas, and sarcomas), but which are rarely seen in adults. Every subspecialty of adult medicine exists in pediatrics (with the obvious exception of geriatrics).

Adolescent medicine is a growing subspecialty. The pattern of diseases in adolescents in part resembles that seen in older adults, and specialists or subspecialists in adolescent medicine are also drawn from practitioners of internal medicine or family medicine. Another major subspecialty, which is unique to pediatrics, is neonatology: the medical care of newborn babies.

8. Answer the questions using the text:

- 1. What language does the word *pediatrics* come from? Give its definition.
- 2. Who is a pediatrician?
- 3. Is the upper age limit similar in all countries? What is it in Kyrgyzstan?
- 4. Why does pediatrics differ from adult medicine?
- 5. What issues are of great concern to pediatricians?
- 6. What does pediatric cardiologist (oncologist) deal with?
- 7. Does every subspecialty of adult medicine exist in pediatrics?
- 8. What is adolescent medicine?
- 9. What does neonatology deal with?

9. Translate word combinations into English using active vocabulary:

новорожденный; иметь дело; подросток; отличаться от; узкая специальность; детский кардиолог; шаблон заболевания; пройти дальнейшую подготовку; существовать в педиатрии; очевидное различие; детство.

10. Replace the word combinations in **bold** type with active vocabulary. Translate the sentences:

1. Pediatrics is a relatively new **division of medicine**, developing only in the mid-1800s. 2. Neonatology **concerns with** the medical care of **newborn babies**. 3. Pediatrics and adult medicine **varies** in many respects. 4. Adolescent medicine is a **narrow specialty** of pediatrics. 5. The **questions** of legal responsibility and informed consent must always be considered in every pediatric procedure. 6. Pediatricians must **undertake** further training in their chosen field. 7. The pathologic conditions of **children aged from 12 to 18 years** are mainly functional disturbances of various organs. 8. **Inborn** defects and genetic variance are of concern to pediatricians.

11. Agree or disagree. Use the given expressions:

Quite so.	0	I'm afraid you're mistaken.
You're quite right.		As for me I don't think so.
I agree completely.		I'm afraid I can't agree with you.

The specialty of pediatrics is very different to adult medicine, as children grow, change, and mature.
 The most important thing to remember during your time as a student is that pediatrics should above all be pleasurable.
 A doctor shouldn't include a child in the conversation during a consultation.
 Style and approach to history taking and examination depends very much on the child's age.
 Pediatrics began its development as a science in the 17th century.
 The child's history is mostly obtained from a parent.

12. Give the summary of the text "Pediatrics" according to your plan.

13. Read the text and give its summary:

History Taking: Children and Doctors

The history

A structured approach to history taking is important to avoid forgetting things, but this must not become too rigid, as it is sometimes necessary to pursue a different line of questioning to gain essential information. A list of useful headings in pediatric history taking given below should be memorized.

Talking to the child

Children should be asked to give their account of events with parental corroboration. Children under 5 years old will lack the vocabulary and communication skills to describe their symptoms, but will be able to point to parts that hurt.

Talking to the parents

Most of the history is likely to be gained from the parents or guardians.

- Ask if they have the infant medical record book. It contains information about height and weight, immunizations, development, and illnesses in the first few years of life.
- Ask whether the parents have any views on what the cause of the child's trouble is. Listen carefully to the parents; they are acute observers of their children.
- Ensure that all terms used are appropriately defined and you should be gleaning information from the parents' observations and not their interpretation of the symptoms. Further, the parent may interpret a baby's cries as pain when, in fact, it is your task to establish the circumstances of the cries and, therefore, the cause.
- As children get older, the parents may have a hazy memory for early events. Establishing symptoms in relation to easily remembered events (e.g. first walked) may clarify the timeline.

Outline of pediatric history

- Presenting complaint and history of presenting complaint.
- Birth history:
 - Place of birth.
 - Gestation and pregnancy.
 - o Birth weight.
 - Delivery.
 - o Perinatal events.
- Feeding methods and weaning.
 - If bottle fed, note how the bottle feed is mixed (how many scoops / number of ounces).
- PMH (Past Medical History) including hospital admissions, infections, injuries.
- Developmental history.
- School progress.
- Immunizations.
- Drugs.
- Allergies.

- Family tree with siblings' ages, including deaths, miscarriages, and stillbirths.
- Parental age and occupation.
- Family illnesses and allergies.
- Housing.
 - This should include a discussion about the child's bedroom as they may spend 12 hours of each day there.
- Travel.
- Systems review.

Unit 2. Communication Skills

1. Read and learn by heart:

ACTIVE VOCABULARY

communication skills навыки обшения interact *v* взаимодействовать be aware of smth знать, сознавать, отдавать себе полный отчет bear smth in mind помнить. иметь в виду gain trust завоевать доверие **co-operation** *n* сотрудничество pay a compliment сделать комплимент interview n беседа, собеседование (врача с пациентом) show empathy проявлять coneреживание, сочувствие daunting *a* запугивающий, устрашающий perception *n* восприятие reassure v успокаивать, утешать reassurance n успокаивание, утешение, уверение

себя непринужденно (свободно, комфортно) concern n беспокойство, огорчение avoid doing smth избегать делать что-либо elicit v выявлять, делать вывод, устанавливать rapport n взаимоотношение; взаимопонимание respond v отвечать, реагировать cue n намёк tummy n paзг. живот(ик) bug n paзг. вирус, вирусная инфекция

put smb at ease, svn. make smb

comfortable дать почувствовать

objective *n* цель, стремление **approach** *n* подход

2. Read and translate the text:

Communication Skills

Many doctors come into contact with children, so it is important that doctors have the necessary communication skills to interact effectively with

them. Doctors need to be aware of differences between adult and child patients and to bear these differences in mind during the consultation. By doing so, doctors will have a better chance of gaining trust from children and getting their co-operation.

Engaging in some small talk with a child, such as paying him/her a compliment or checking that he/she is comfortable are important points for a doctor to remember.

As the interview progresses it is important for a doctor to acknowledge a child's feelings, to show empathy, and to ask a child for a permission before examining him/her. Visiting the doctor's can be a daunting experience for a child so it is necessary that a doctor can minimize any negative perceptions the child may have, by providing reassurance throughout the interview.

Doctors need to be aware that even very minor procedures can make a child uneasy, so it is important for doctors to explain procedures in simple language and to give clear instructions in order to gain child's co-operation.

It is necessary for doctors to show a child that they are actively listening to any concerns he/she may have and to respond appropriately. Doctors should avoid putting words in the patient's mouth or being judgemental; instead they should elicit how a child feels and why, and show support.

3. Match the topics with the information in the text:

- 1. establishing initial rapport with a child;
- 2. developing rapport with a child;
- 3. reassuring a child;
- 4. explaining procedures to a child;
- 5. responding to a child's verbal cues.

4. Read the quotation from A. Speirs and answer the following questions:

"In paediatric consultations, communication takes a triangular form, involving the doctor, the child and the parent, each giving and receiving information, each observing and being observed" ("Talking to Children" Speirs, 1996).

- 1. Can a doctor put a child at ease if he directs the conversation at the parent?
- 2. Write down two things to make a child comfortable. This can include aspects of both verbal and non-verbal communication. Model: Say hello to the child and call him/her by name.

Smile at the child.

3. Share your ideas in a group. Make up a list.

5. Look at the list of examples of establishing and developing rapport with a child. Compare it with your own list.

- © Say hello to the child and call him/her by name.
- © Eye-level with the child. Make sure you talk to the child at his/her eye-level. Scoot your chair next to him/her, sit down and have a conversation.

- © Pay the child a compliment, e.g. admire article of clothing/toy, etc.
- © Praise the child for something, e.g. the picture he/she's drawing.
- © Pace your conversation accordingly. If you actually speak quickly, try taking it down a notch for the child.
- © Use a friendly/gentle tone of voice.
- © Ask the child about hobbies, favourite subject at school, etc.
- \odot Repeat words used by the child.
- $\odot\,$ Smile at the child.

Remember! In Anglo-Saxon countries the following body language can be used to open the interview: open seating position (no crossed arms/legs), slight inclination of the head, sitting slightly forward, eye contact and a smile.

6. Read and translate the beginning of a consultation with a new patient. The doctor is talking to a six-year-old girl and her mother:

Doctor: Hello, Mrs. Long. Hello, Sara.

Mrs. Long: Hello, Doctor.

Doctor: Please take a seat.

Mrs. Long: Thanks. Sara, sit here next to me, sweetheart¹.

Doctor: Right, so can you tell me what seems to be the problem?

Mrs. Long: Um, Sara has been complaining of stomach cramps² and she's off her food³.

Doctor: I see. And when did the cramps begin?

Mrs. Long: Yesterday. She felt poorly in the morning, didn't you, Sara? **Doctor:** Any idea what might have caused the cramps?

Mrs. Long: I think it might be some kind of bug. A few of the children in her class have the same thing.

Doctor: Right, well, I'll have a look at her. Sara, could you lie on the bed and I'll look at your tummy?

Notes:

1. Does the doctor try to establish rapport with the child?

2. Does he develop it?

3. Who does the doctor direct the conversation at?

4. Does the doctor include Sara in the conversation?

5. Does Sara feel comfortable? Give your comment.

6. What examples of good practice can you find in the conversation?

7. The way in which a doctor receives a patient can make or break the consultation that follow. A doctor needs to treat their patients with respect, of course, but establishing rapport within the first few minutes is also about how doctors greet the patients and introduce themselves, clarifying their role, making sure patients are comfortable. Look at these phrases and give each set of objectives a heading (Заголовок):

Objective 1	Objective 2
 Hello, [Sara], take a seat please Good morning, [Billy], come in Hello, can I just check it's [Nick]? We've not met before 	 My name is Dr. Smith. I'm Dr. Brown. Dr. Linley has referred you to me for further investigation. My name is Dr. Quinn.
Objective 3	Objective 4
 I'm a student doctor working with Mr. [House]. I'm one of the registrars on the ward this evening. 	 Do you want to sit here next to your mummy? If I could just ask you to sit here next to me. That's great. Are you comfortable?
• My colleague, Dr. [Taylor], has asked me to come and see you about	• Yes, it's a bit cool here. Let me just close the window before we begin.

8. Read and translate another dialogue. Another doctor is talking to a sevenyear-old boy and his mother:

Doctor: Hello, Billy. Hello, Mrs. Jones. My name's Dr. Gordon. I'm one of three partners who make up this family practice. Now, Billy, do you want to sit here next to your mummy, and I'll sit here. Just let me raise your chair up a bit so you can see me. That's better. That's a great football shirt, Billy. So, you're a Manchester United supporter?

Billy: Yes.

Doctor: And do you support Manchester United as well, Mrs. Jones?

Mrs. Jones: Oh, yes. The whole family does.

Billy: My dad is their biggest fan.

Doctor: Does he take you to any matches?

Billy: I've been to three matches this year.

Doctor: You're very lucky. And who's going to win the league?

Billy: Man U, of course!

- 1. Does the doctor cover all four objectives? Give examples.
- 2. Does he include Mrs. Jones in the small talk?
- 3. Can the doctor gain Billy's trust and co-operation? Give your comments.
- 4. What topics put Billy at ease? Make up a list of things that make Billy comfortable. (Consult Ex. 7).

¹ sweetheart – дорогая

 $^{^2}$ cramp – спазм

³ be off one's food – отказываться от еды

9. Compare both dialogues. Tick the stages both doctors include:

Doctor 1		Doctor 2	
Greets the child	V	Greets the child	V
Calls the child by her name		Calls the child by his name	
Introduces himself		Introduces himself	
Clarifies his role		Clarifies his role	
Makes sure the child is comfortable		Makes sure the child is comfortable	
Pays the child a compliment		Pays the child a compliment	
Asks questions about the child's		Asks questions about the child's per-	
personal interest		sonal interest	

10. Work in pairs. Make up a micro dialogue. It should cover first three objectives: greeting the child and his/her mother/ father, introducing your-self and clarifying your role.

11. Engaging in some small talk with children, such as paying them a compliment or checking that they are comfortable, are important points for a doctor to remember.

a) Focus on language that will put the children at ease.

Remember! It's important to use softeners such as **just** to establish and develop rapport with the patient in English-speaking cultures. Phrases with the softener **just** are more polite, non-threatening, and therefore more patient-friendly. An absence of **just** can mean a lack of warmth and tact.

1. Read and compare the examples below:

- a) It's a bit cold here. Let me just close the window before we begin.
 b) It's a bit cold here. Let me close the window before we begin.
- 2. a) If I could just ask you to sit here next to me.b) If I could ask you to sit here next to me.
- 3. a) Just let me raise your chair up a bit so you can see me.b) Let me raise your chair up a bit so you can see me.

2. Complete the sentences using the softener *just:*

- 1. Can you ... turn your head to the side so I can see your ear?
- 2. Let me ... help you.
- 3. Sara, could you ... lie on the bed?
- 4. I ... want to look at your tummy.
- 5. I'm sure it's ... a slight bug.
- 6. I'm ... going to listen to your heart.

3. Translate into English:

- 1. Это всего лишь небольшой порез (cut).
- 2. Я только (всего лишь) хочу взглянуть на твою ногу.

- 3. Позволь мне только взглянуть на твой язык.
- 4. Я собираюсь всего лишь прослушать твою грудную клетку.
- 5. Это всего лишь небольшая простуда.
- 6. Это всего лишь стетоскоп (stethoscope). Ты можешь потрогать его.

4. Give your own examples.

b) Focus on language you can use to pay the child a compliment.

Remember! Paying a child a compliment is an important point for doctors to remember. It's one of the best ways to get his/her co-operation

1. Study the following constructions:

That's a + adjective + noun
 Example: That's a great football shirt, Billy.
 They're + adjective + noun (plural).
 Example: They're cool trainers, Jim.

2. Read and translate:

- 1. That's a lovely dress, Mary.
- 2. That's a cool car, Nick.
- 3. That's a pretty doll, Kitty.
- 4. That's a cute toy, Sam.
- 5. That's a nice skirt, Helen.
- 6. That's a great T-shirt, Joe.

3. Complete the sentences:

- 1. ... lovely hat, Dolly
- 2. ... pretty smile, Tom.
- 3. ... cute jeans, Willy.
- 4. ... nice bows, Kitty.
- 5. great teddy bear, Billy.
- 6. ... cool sneakers, Harry.

4. Practise other expressions to pay a compliment.

I like your + noun Example: I like your jeans, Ed. *What a + adjective + noun* Example: What a cute teddy bear!

12. Work in pairs. Practise using the phrases in Exercise 11 (b) in these scenarios:

- 1. Kitty, a five-year-old girl, is very shy. She's come with her favourite toy, a teddy bear.
- 2. Mike, a six-year-old boy, has brought a new transformer.

- 7. They're cute sunglasses, Ann.
- 8. They're lovely shoes, Sara.
- 9. They're great jeans, Mike.
- 10. They're pretty stickers, Lily.
- 11. They're nice pencils, Ed.
- 12. They're cool transformers, Dick.

- 3. Dolly, a seven-year-old girl, is wearing a fashion pink skirt and blouse. She has a new model of Barbie in her hand.
- 4. Nick, an eight-year-old boy, is very proud of his jeans and trainers his parents presented him for his birthday.

13. Read the dialogue in Exercise 6 and make changes to improve the consultation. Role-play the improved dialogue.

Remember to:

- Introduce yourself and clarify your role.
- Make sure the child is comfortable.
- Pay the child a compliment.
- Show empathy and support.

14. Make up your own dialogues.

15. Translate the text, give its abstract:

The Examination: an Approach

Examination in children varies depending on the age and co-operation of the child. School-age children and babies may be examined on a couch with a parent nearby, whereas toddlers are best examined on the parent's lap. If the child is asleep on the parent's lap, much of the examination should be completed before waking him/her up.

Undressing

Let the parent undress the child: and only expose the part of the body you will be examining.

Positioning

Some children may prefer to be examined standing up. Only lay the child down when you have to, as this can be very threatening.

Putting the child at ease

Slowly introduce yourself to the child's space during the examination by exchanging toys, for example.

Explain what you are going to do and be repeatedly reassuring, children can be embarrassed by silence after a doctor's question, but will be comforted by endless nattering. And remember - don't ask permission, as this will often be refused!

The examination

Firstly, use a hands-off approach. Allow the child to look at you, and let them play in your presence. Watch the child. How do they interact with their parents? Do they look well or ill? Do they look clean, well nourished, and well cared for?

Kneel on the floor so that you are at the child's level. Use a style and language appropriate to the age of the child, a toddler will understand the word "tummy" better than the word "abdomen".

Be opportunistic

Do not adhere to a rigid examination schedule, e.g. you may have to listen to the heart first while the child is quiet, then look at the hands later. Never examine the presenting part only. Be thorough and train yourself to be a generalist. Leave unpleasant procedures, such as examination of the tonsils, until last.

Presenting your findings

When presenting your findings, translate what you see into appropriate terminology. Informing a senior that a child looks funny is not very helpful but the saying the child is dysmorphic, followed by a detailed description is acceptable. Describe in simple terms the relevant features that make the child look unusual, e.g. low set ears, wide set eyes. There is no substitute for examining lots of normal children.

Paediatrics is a specialty bound by age and not by system. Some distraction techniques to help with examination

- Playing peek-a-boo.
- Letting toddlers play with your stethoscope.
- Giving infants something to hold.

• Asking mum or dad to wave a bright toy in front of them.

You can do anything with children if you only play with them.

Unit 3. Health Care Abroad

1. Read and learn by heart:

ACTIVE VOCABULARY

private doctor частный врач resident *n* врач-стажёр (проходящий последипломную клиническую подготовку после интернатуры) to inoculate *v* делать прививку inoculation *n* прививка

consulting physician врачконсультант disability *n* нетрудоспособность, инвалидность the disabled *n* инвалиды retirement benefits пенсионные выплаты emergency unit отделение неотложной помощи the injured *n* пострадавшие, раненые the blind *n* незрячие, слепые Medicare правительственная программа, предусматривающая частичную оплату медицинского обслуживания престарелым за счет страхования, остальную часть за счет государства dependent children несовершеннолетние дети the aged (syn. the elderly) n пожилые, старые люди

stroke *n* инсульт mental diseases психические заболевания drug addiction пристрастие к наркотикам, наркомания **staff** *n* штат trauma *n* травма **insurance** *n* страхование to regard v касаться, иметь отношение employee *n* служащий; работающий по найму cost *n* цена, стоимость to force smb to do smth вынудить (кого-л.) сделать что-л. **іпсоте** *п* доход **expense** *n* трата, расход

2. Translate the word combinations with the given key-words:

private: private doctors; private medical practice; private patients; private treatment; private insurance companies

hospital: government-financed hospital; hospital facilities; private hospitals **provide**: provided; provides; to provide primary medical care; to provide health care to the sick and injured; to provide free medical care

consult: consults; consulted; consulting; consulting physician; consulting hours; consultation centre; consulting room

3. Match Russian and English equivalents:

1) the level of the family doctor	 а) это заставило федеральное прави- тельство разработать две про- граммы по страхованию здоровья
2) to give inoculations	b) делать прививки
3) hospital's facilities	с) основные отделения
4) health care to the sick and injured	 d) на протяжении всего пребывания пациентов в больнице
5) throughout the patients' stay in the hospital	е) уровень семейного врача
6) major departments	f) малоимущие
7) disability insurance	g) больничное оборудование
 it forced the federal government to develop two health insurance programs 	h) страхование по инвалидности

9) low-income people;	i) медицинская помощь больным
10) providing free medical care	и пострадавшим j) обеспечивающий бесплатную ме-
	дицинскую помощь

4. Read and translate the following word-combinations:

directly from the patient; own private office; government-financed hospitals; clinics staffed by consulting physicians; intensive care unit; health insurance; continued illness; place of employment; maternal and child health care; retirement benefits; great cost of medical care

5. Translate the following sentences:

1. In recent times the federal government has employed several different tactics in its attempt to safeguard public health. 2. Vast sums were also poured into new hospital's facilities. 3. The most significant contributions the government makes to health care, at least in dollars, are the Medicare and Medicaid programs. 4. Medicare assists the elderly and disabled; Medicaid helps the poor. 5. Patients may choose the doctor they wish, provided only that he is enrolled in the Service (при условии, что он состоит на государственной службе) and that he agrees to attend them. 6. If a serious illness develops or diagnosis is difficult the whole team of health professionals comes into action. 7. There are both government-financed and private hospitals in the USA. 8. The emergency patients are provided with free medical care. 9. Hospitals and clinics are staffed by consulting physicians, residents, interns and highly skilled nurses.

6. Read and translate the text. Make the plan of the text using key-words.

Health Care in the USA

The health care system in the USA exists on three levels: the level of the family doctor, the medical institution or hospital and the United States Public Health Service.

A private doctor or a family doctor gives his patients regular examinations and inoculations. In case professional care is needed, the family doctor arranges for the patient to see a specialist or to go to a hospital. The family doctor receives pay directly from the patient. Most physicians have private practices. They make use of the hospital's facilities whenever necessary. A family doctor either has his own private office or works with several other doctors in a socalled group practice.

Many Americans have no family doctor and they come directly to the hospital for all their medical needs. The hospital provides health care to the sick and injured. There are government-financed and private hospitals in the USA. The patients are admitted to hospitals or clinics staffed by consulting physicians, residents, interns and highly skilled nurses. The nursing staff is very important. Nurses and patients are in close contact throughout the patients' stay in the hospital. Social services are available to the patients and families regarding personal, emotional, and financial problems that may arise from continued illness or disabilities.

Most hospitals have at least the following major departments or units: surgery, obstetrics and gynaecology, pediatrics and general medicine. They may also have trauma intensive care units, neurosurgical and renal care units, and a psychiatric unit. The Emergency Room (unit) is a very special area in the hospital. The emergency patients receive immediate attention.

Medical care in the USA is very expensive. Two thirds of the population have private health insurance. Some people have health insurance, life insurance (financial assistance for the relatives in case of death), disability insurance and retirement benefits at their place of employment. Most employees and their families now pay more than 50 per cent of the cost of health insurance.

The great cost of medical care in the country and the great number of people who could not pay for it forced the federal government to develop two health insurance programs – Medicaid and Medicare. Medicaid, started in 1966, is a federal program providing free medical care for low-income people, the aged, the blind and for dependent children. Medicare, started in 1967, is a federal program providing free medical care for disabled and aged Americans over 65, for those who in the past had the greatest medical expenses.

The chief scientific problems facing American medicine are the same as those facing Kyrgyz medicine, they are heart disease and cancer. The chief causes of suffering and death today are cancer and cardiovascular diseases, including hypertension, stroke and atherosclerosis. Also much medical research is done on illnesses of aging, disabilities caused by arthritis, mental illness, drug addiction, and genetic problems.

7. Answer the questions using the text:

- 1. What levels does the health care system in the USA exist on?
- 2. What are the main duties of a family doctor?
- 3. What kinds of hospitals are there in the USA?
- 4. Who comprises the staff of hospitals or clinics in the USA?
- 5. What departments do American hospitals have?
- 6. How many people have private health insurance?
- 7. What kinds of health insurance do people have?
- 8. Why did the federal government develop two health insurance programs? What are they?
- 9. What is Medicare? What is Medicaid?
- 10. What can you say about scientific problems facing American medicine?

8. Translate the word combinations into English using active vocabulary:

система здравоохранения Америки; регулярный осмотр; поступать в больницу; медицинское обслуживание доступно пациентам; продолжительное заболевание; отделение неотложной помощи; оказывать медицинскую помощь пострадавшим; пенсионные выплаты; место работы; частное медицинское страхование; включая гипертонию и инсульт; нетрудоспособность, вызванная артритом

9. Tell about the work of the family doctor in the USA using the following word combinations:

private doctor, family doctor, to give regular examinations, professional care, to arrange for the patient to see a specialist, to make use of hospital's facilities, private office, group practice

10. Replace the word combinations in **bold** type with active vocabulary. Translate the sentences:

1. A private physician gives his patients regular examinations and inoculations. 2. The family doctor arranges for the patient to go to an out-patient department. 3. They make use of the hospital's equipment and apparatus whenever necessary. 4. The hospital gives medical aid to the sick and wounded. 5. Clinics are staffed by consulting doctors, residents, interns and experienced nurses. 6. The Emergency Room is a very special area in the hospital. 7. The federal government worked out two health insurance programs. 8. The main scientific problems in the USA are cancer and heart diseases. 9. Medical scientific investigation is done on illnesses of aging, disabilities triggered by arthritis, mental illness, drug addiction, and genetic problems. 10. The emergency patients receive quick attention.

11. Agree or disagree. Use the given expressions:

Exactly.	(I'm afraid) I don't think that is correct
Yes, I think that	(I'm afraid) I can't agree with the fact that
I (quite) agree.	(I'm afraid) I don't think you are right
I think so.	I disagree (with you).
Certainly.	Not at all.
I suppose so (it is, he does).	On the contrary.
That's true.	Nothing of the kind.
Quite so.	Vice versa.

1. A private doctor should give injections. 2. Medicaid is a federal program, which provides free medical care for the poor, the aged, the blind and for children under eighteen. 3. Medicaid is a federal program, which provides free medical care for aged Americans over sixty five. 4. Most employees and their

families have to pay for their health insurance. 5. Many people in the United States have health insurance, life insurance, disability insurance and retirement benefits at their place of work. 6. The chief scientific problems facing American medicine are cancer and cardiovascular diseases. 7. Medical research is done on pediatric illnesses. 8. Genetic problems, mental illness and drug addiction are studied by medical scientists.

12. Give the summary of the text "Health Care in the USA" according to your plan.

13. Read and translate the following text in written form.

Medical Service in the USA

The provision of medical and health care is one of the largest industries in the United States. American hospitals are well-equipped and efficient, and doctors earn incomes far above the general average. For anyone who is ill, the cost of treatment is very high. There are many inadequacies in medical services, particularly in rural and poor areas. About one-sixth of the population, including members of the armed forces and their families, receive medical care paid for or subsidized by the federal government. Many people are not covered by any form of health insurance.

The federal Department of Health and Human Services through its National Institutes of Health supports much of the biomedical research in the United States. Grants are made also to researchers in clinics and medical schools.

14. Read the text and say why people should be physically active and how they can achieve healthy well-being.

Get Moving and Stay Healthy

People who are busy with work and career find it difficult to get enough exercise. But research shows that all Americans need physical activity for good health. The US government recently released the *Physical Activity Guidelines for Americans* to help them live longer, feel better and help themselves and the country.

Regular physical activity improves person's overall health and fitness. It can help reduce high blood pressure, high blood cholesterol and other risk factors for disease. That means physical activity can play a role in preventing heart disease, stroke, some cancers, type 2 diabetes, osteoporosis and depression.

But you don't have to get physical activity every day. The recently released recommendations say that exercise can be measured in weekly totals.

The goal is to get at least $2\frac{1}{2}$ hours of physical activity every single week. Americans are advised to make a habit of fitting physical activity into their routines.

There are 2 types of activities included in the recommendations: aerobic and muscle-strengthening. Aerobic activities – also called endurance activities – are those in which you move your large muscles rhythmically for a long time. Muscle-strengthening happens when your muscles do more work than they are used to. Activities that strengthen muscle include heavy gardening, lifting weights, push-ups on the floor or against the wall, sit-ups and working with resistance bands (long, wide rubber strips that stretch).

The experts also agree that some physical activity, no matter how much, is better than none. So how can you start? The "Start Low and Go Slow" slogan in the consumer publication is based on the new guidelines.

For example, walk a little more to the bus stop on your way to work, or park your car at the far end of the parking lot. Start with a 10-minute walk a couple of times a week. As you get used to it, increase the walk to 15, 20 and 30 minutes per day. When you reach 30 minutes per day, 5 days a week, you're meeting the minimum recommended activity level.

It's important for everyone, including people who have disabilities and kids. Everyone can get physical activity in their own way, and it will help their health.

15. Study the following constructions. Practise to show empathy:

- 1. *That/You must + infinitive* Example: You must be tired.
- 2. *That/You must + perfect infinitive* Example: You must have missed that, Billy.
- 1. That must be difficult for you.
- 2. You must feel a lot of pain.
- 3. You must feel sad.
- 4. You must have been disappointed.
- 5. You must have been upset.

16. Work in pairs. Practise using these phrases in the following situations:

- 1. A nine-year-old boy has come to see you because he has a nasty cough. He tells that he had to miss the school football championship.
- 2. A ten-year-old girl has come to see you because she has stomach cramps and a runny tummy. She's upset she can't go to her friend's birthday party today.
- 3. A six-year-old boy has come to see you because he has an earache. It kept him awake at night.

Unit 4. The National Health Service in the United Kingdom

1. Read and learn by heart:

ACTIVE VOCABULARY

National Health Service (the NHS) Государственная служба здравоохранения set up v учреждать, основывать соvег *v* охватывать publicly funded service обшественно финансируемая служба screening n скрининг (исследование группы бессимптомных больных для выявления лиц с высокой вероятностью наличия данного заболевания) antenatal screening антенатальный (пренатальный, дородовый) скрининг end-of-life care пожизненный уход general practitioner (GP) врач общей практики ambulance staff персонал (штат) скорой помощи open-heart surgery операция на открытом сердце accident *n* несчастный случай

accidents and emergency (A&E) department (service) отделение (служба) экстренной (медицинской) помощи при несчастных и неотложных случаях free of charge бесплатно charge *n* плата walk-in centre (WiC) медицинский сестринский центр (центр, в котором работают преимущественно медсёстры и куда может обратиться любой пациент без предварительной записи по поводу незначительных травм и заболеваний) NHS Direct прямая линия ГСЗ via prep через illness *n* заболевание life expectancy предполагаемая продолжительность жизни **mortality** *n* смертность comprise v включать, охватывать; содержать

2. Translate the word combinations with the given key-words:

charge: charges for some prescriptions; charges for optical and dental services; free of charge

via: to provide primary care via a local GP; via NHS walk-in centres; via dentist, pharmacist and optician; to provide information via the Internet

comprise: comprised; comprising; to comprise all kinds of hospitals; to comprise sanatoria and rehabilitation centres; to comprise maternity homes and children's hospitals

set up: setting up; to set up the NHS; to set up a hospital; to set up an outpatient clinic; to set up a walk-in centre; to set up a medical insurance company

3. Match Russian and English equivalents:

1) ambulance staff а) первая помошь 2) resident b) врач общей практики 3) provide advice с) по телефону 4) respiratory disease d) ведение (консультирование) детей 5) receive from the NHS е) советы по уходу после рождения 6) survey ребенка 7) child guidance f) лечение несчастных и неотложных 8) postnatal advice случаев 9) maternity homes g) дать совет 10) over the telephone h) получить (помощь) через ГСЗ 11) accidents and emergency treatі) обзор ment ј) персонал скорой помощи 12) general practitioner k) заболевание дыхательных путей 13) primary care l) житель m) родильный дом

4. Translate the following word-combinations:

психиатрическая больница; охватывать всё; предоставлять первую помощь через службу врачей общей практики; пользоваться бесплатно; получать информацию через интернет; житель Соединенного Королевства; врачи и медсестры больниц; включать отделение экстренной помощи; основать детскую больницу; оплата за услуги стоматолога.

5. Translate the following sentences:

1. The National Health Service provides free medical treatment both in hospitals and outside. 2. You are free to choose a GP in the area you live in and be registered on his list. 3. From 1948 till 1951 people in Great Britain didn't pay for drugs. 4. At NHS walk-in centres you can see an experienced nurse without an appointment. 5. Centres at the NHS operate from 8:00 am to 10:00 pm, 7 days a week. 6. Accident and Emergency departments assess and treat patients with serious injuries or illnesses. 7. If an ambulance is needed, call 999, the emergency phone number in England. 8. Free emergency medical treatment is given to any visitors from abroad who become ill while staying in the UK.

9. From April 2008 patients can choose any NHS hospital in the country to be treated. 10. The NHS employs more than 1.5 m people. Only the Chinese People's Liberation Army, the Wal-Mart supermarket chain and the Indian Railways employ more people.

6. Read and translate the text. Make the plan of the text using key-words.

The National Health Service

The National Health Service (NHS) was set up in 1948 in the UK. It was born out of an idea that good health care should be available to all, regardless of wealth.

Nowadays the NHS is the world's largest publicly funded health service. It covers everything from antenatal screening and routine treatment for coughs and colds to open-heart surgery, accidents and emergency treatment and end-of-life care. Nationwide, the NHS employs more than 1.5 m people, including some 90,000 hospital doctors, 35,000 general practitioners (GPs), 400,000 nurses and 16,000 ambulance staff.

Anyone who is resident in the UK (more than 60 m people) can use its services free of charge, with the exception of charges for some prescriptions and optical and dental services. Primary care is provided via a local GP, NHS walk-in centres, dentist, pharmacist and optician. NHS Direct is also responsible for providing health care advice and information 24 hours a day via the Internet and over the telephone.

The Hospital Service comprises different kinds of hospitals, both general and special (including children's hospitals, mental hospitals, maternity homes, sanatoria, rehabilitation centres, etc.). Specialized clinics provide treatment for all kinds of diseases: cardiovascular, respiratory, mental, orthopaedic and other illnesses, antenatal and postnatal. Advice and child guidance are also given.

In the UK life expectancy has been rising and infant mortality has been falling since the NHS was established. Both figures compare favourably with other nations. Surveys also show that patients are generally satisfied with the care they receive from the NHS. Importantly, people who have had recent direct experience of the NHS tend to report being more satisfied than people who have not.

7. Read additional information on the NHS:

Do you know that for the NHS a typical day includes:

- Over 835,000 people visiting their GP practice or practice nurse
- Almost 50,000 people visiting accident or emergency departments
- 49,000 outpatient consultations
- 94,000 people admitted to hospital as an emergency admission
- 36,000 people in hospital for planned treatment
- 28,000 sight tests being carried out
- 18,000 calls to NHS Direct

8. Answer the questions using the text:

- 1. When was the NHS set up?
- 2. What medical treatment does the NHS cover?
- 3. How many employees does it comprise?
- 4. What services provide primary care?
- 5. What medical institutions are there within the Hospital Service?
- 6. What kinds of diseases are treated in specialized clinics?
- 7. Are people satisfied with the care they receive from the NHS?
- 8. How have life expectancy and infant mortality changed since the establishment of the NHS?

9. Translate the word combinations into English using active vocabulary:

государственная служба здравоохранения; независимо от богатства; от лечения кашля и простуды до операции на открытом сердце; круглосуточно; включать различные типы больниц; реабилитационный центр; родильные дома и санатории; служба экстренной медицинской помощи; врач общей практики; прямая линия государственной службы здравоохранения.

10. Replace the word combinations in **bold** type with active vocabulary. Translate the sentences:

 Any patient will be able to pre-book an appointment or simply walk in and see a doctor or nurse.
 You can get the information through the Internet.
 Not all hospitals have an emergency unit.
 The NHS was established on
 July, 1948.
 The Hospital Service comprises general and special hospitals.
 Accident and Emergency departments treat patients with serious injuries or diseases.
 Nurse-led centres are primary care institutions.
 Infant death rate has been falling since the NHS was established.

11. Read and translate the following text.

Primary Care Services

NHS GPs

Your local general practitioners' (GP) surgery provides a wide range of family health services:

- advice on health problems,
- vaccinations,
- examinations and treatment,
- prescriptions for medicines,
- referrals to other health services and social services.

If your condition is not urgent, you can expect to see a doctor within two working days or a health professional, such as a nurse, within one working day.

If you don't need an appointment within two working days, you can also book in advance if this is more convenient to you.

You are free to choose a GP in the area you live in and be registered on his list. The average GP has a little over 2,000 people on his list. Out of his earnings he must provide a waiting room, a consulting room, a car, and a secretary. It is usual for three or four GPs to work in group practice.

A&E Service

Accident and Emergency departments assess and treat patients with serious injuries or illnesses. Generally you should visit A&E or call 999 for emergencies, such as:

- loss of consciousness,
- pain that is not relieved by simple analgesia,
- acute confused state
- persistent severe chest pain
- breathing difficulties.

If an ambulance is needed, call 999, the emergency phone number in England. You can also dial 112, which is equivalent for the European Union.

Major A&E departments offer access 365 days a year and 24 hours a day. Not all hospitals have an A&E department. At A&E a doctor or nurse will assess your condition and decide on further action. These departments try to see, diagnose and treat 98% of people within four hours of arrival.

In addition to A&E departments, other services such as walk-in centres and minor injury units are available. They can treat patients without any appointment. They deal with minor injuries and illnesses.

Walk-in Centres

NHS walk-in centres (WiCs) offer convenient access to a range of treatment. There are about 93 centres in England, dealing with minor illnesses and injuries. These include:

- infection and rashes,
- fractures and lacerations,
- emergency contraception and advice,
- stomach upsets,
- cuts and bruises,
- burns and strains.

NHS WiCs are usually managed by a nurse and are available to everyone. They are staffed by specially trained nurse practitioners, staff nurses and healthcare assistants. No doctors work on this unit. Patients don't need an appointment.

Most centres are open 365 days a year and outside office hours. The Walk-in Centres at the NHS operates from 8:00 am to 10:00 pm, 7 days a week. The WiC is also home to the city's "Out Of Hours" GP service for patients requiring consultation with a GP or Nurse Practitioner outside of normal GP surgery hours and is available from 6:30pm till midnight Monday to Friday and from 8:00 till midnight on Saturday and Sunday.

NHS WiCs treat around three million patients a year and have proved to be a successful complementary service to traditional GP an A&E services. Some NHS WiCs offer access to doctors as well as nurses. However they are not designed for treating long-term conditions or immediately life-threatening problems.

Remember!

Please note the following conditions CANNOT be assessed in the Walk-in-Centre:

- Children under the age of 2
- Children under the age of 6 with injuries
- Chest pain
- Shortness of breath
- Head injuries with neurological symptoms
- Back, neck, shoulder, hip or rib injuries
- Chemical injuries to the eye

Should any of the above apply to you or if urgent, please see your GP or go to A&E.

12. Give the Russian equivalents:

a range of services; prescriptions for medicines; an appointment; a waiting room; to assess and treat patients breathing difficulties; to offer access; within four hours of arrival; to deal with minor injuries; infection and rashes; stomach upsets; specially trained nurse practitioners; a successful complementary service; to do wound care; to offer ear syringing; to do phlebotomy.

13. Give the English equivalents:

направление к другому врачу; в течение пяти рабочих дней; заработанные деньги (заработок); серьёзная травма; порезы и ожоги; вне рабочего времени; оценить состояние больного; позвонить 999; предлагать удобный доступ к чему-либо; состояние, угрожающее жизни; управлять; навещать родственников; обсудить вопросы (дела); медсестра, выписывающая рецепты.

14. Find the synonyms for the following words in the texts:

1. pre-book (v)	6. doctor's office (<i>n</i>)
2. partnership (<i>n</i>)	7. suggest (v)
3. suitable (<i>a</i>)	8. society (n)
4. breathlessness (<i>n</i>)	9. estimate (v)
5. disease (<i>n</i>)	10. accessible (a)

15. From the list below choose the necessary word to fit each blank:

ailments, convenient, strains, urgent, out of hours, offer, emergency, pre-book, bruises, appointment, vital

1. If your condition is not ..., you can expect to see a doctor within two working hours. 2. At NHS walk-in centres you can see an experienced nurse or doctor without an 3. They ... advice, assessment and treatment for minor ... and injuries such as cuts, ..., minor infections, ... and skin complaints. 4. Over 150 GP-led health centres are opening across England to make it more ... for patients to visit their GP. 5. Any patient will be able to ... an appointment or simply walk in and see a GP. 6. ... dental treatment is also provided. Only dental work considered ... that cannot wait until the next working day will be provided. 7. If a person's mental or emotional state gets worse quickly, this can be called a mental health ... or mental health crisis.

16. Agree or disagree. Use the given expressions: To my mind I think (suppose, consider) On the one hand..., on the other hand If I'm not mistaken

1. A walk-in centre provides easy access for everyone, not just for people in the community. 2. NHS WiCs cover everything from treatment for coughs and rashes to open-heart surgery. 3. Most centres are open outside office hours. I think it's very convenient for patients. 4. They get lots of children with different medical problems under the age of two. 5. Unfortunately nurses are very busy at WiCs and have no time to talk to the patients and discuss matters. 6. One can find out the location of the nearest WiC very easily. 7. Some NHS WiCs offer access to doctors as well as nurses.

17. Tell about the work of any primary care service within the NHS using the following word combinations:

GP: to provide a wide range of health services, examinations and treatment, vaccinations, prescriptions for medicines, referrals to other health services, to see a doctor within two working days, book in advance, an appointment, to work in group practice.

A&E: to assess and treat patients, to call 999, loss of consciousness, breathing difficulties, severe chest pain, to operate 24 hours a day, to diagnose and treat within four hours of arrival.

WiCs: to be a successful complementary service, to offer a range of treatment, minor illnesses and injuries, specially trained nurse practitioners, staff nurses and healthcare assistants, to be open 365 days a year, from 8:00 am to 10:00 pm, around three million patients.

18. Read through the research carried out by the Department of Health and underline any points that are new or surprised you:

The Research

Patients and the public said that they tend to come into contact with the NHS when they are at their most vulnerable and emotional condition, which makes their emotions, and particularly their negative feelings, stronger. It was felt that the NHS did not always meet these emotional needs. The most commonly identified negative feelings were confusion, disappointment, annoyance and frustration. The main causes were poor communication, waiting times, patronizing staff attitudes and feeling lost in the system. Most patients felt isolated, overwhelmed by the experience, and treated like a number instead of an individual. Numerous people mentioned feeling scared, afraid or anxious.

People involved in the research shared the same opinions about what a positive patient experience at an emotional level should feel like. They said patients want to feel reassured, confident, cared for, informed, safe and relaxed. Being reassured was particularly important; they wish to feel safe and "in good hands". Central to an ideal experience was feeling that they are important and "special".

(Taken from Good Practice, Mc Cullagh and Wright, 2008)

Reassuring a child

19. Think of situations where a child patient might need reassurance:

Example: A child might be scared because he/she thinks the illness is much worse than it really is.

The following expressions may be helpful (be frightened of instruments, give injections, be in pain/ tired/ in shock, etc.).

20. Seven-year-old Jenny has broken her wrist. She thinks it is her fault because she didn't go to bed when her parents told her. Read what the doctor says to her. How does he reassure her?

Jenny, you mustn't think this is your fault. It was an accident. Lots of boys and girls break their wrists.

Language for reassuring a child You shouldn't blame yourself. I'm sure you didn't mean to do it. Don't worry; it's not your fault.

21. Look at the two scenarios take turns playing the role of the doctor: Scenario 1

Doctor: Your patient is nine years old with a chest infection. He/She seems very upset. Find out why he/she is so upset and give reassurance.

Patient: You are a ten-year-old with a chest infection. You went to bed with your hair wet, ignoring your mother's advice to dry it. You are very upset and think you are ill now as a punishment.

Scenario 2

Doctor: Your patient is eleven-year-old boy. He seems very upset. Find out why he is so upset and reassure him that his arm should be better in time for the match.

Patient: You are eleven-year-old boy. You were doing stunts on your bike and you fell off and hurt your arm. Your parents are annoyed with you because they told you not to do stunts. You are worried and upset because you might not be able to play with the school football team, where you are the highest goal scorer.

22. Look at possible phrases a doctor might use to reassure a child. In what context might these phrases be used? Practice saying the sentences aloud.

- 1. Don't look so sad. We're going to make you better very soon.
- 2. You're not to blame for this in any way.
- 3. Don't be scared. I promise this won't hurt.
- 4. It will be very quick, you'll hardly feel a thing.

23. What would you say in the following situations to reassure the patient? Work in pairs and take turns playing the role of the doctor and child.

- 1. A seven-year-old child is very frightened after having a nose bleed during a football match. He thinks he will bleed to death.
- 2. A ten-year-old child is about to have an injection. The child is terrified of needles.
- 3. An eight-year-old child has stomach cramps and is very agitated. She ate an apple, including the core, and thinks a tree is going to grow inside her. You need to examine the child.
- 4. A twelve-year-old girl comes in with the first-degree burn on her hand. She's worried she's going to be scarred for life and thinks it's her own fault because she's been told not to play with candles.

Unit 5. Respiratory Disorders

1. Read and learn by heart:

ACTIVE VOCABULARY

pneumonia <i>n</i> пневмония	inflammatory a воспалительный
respiration <i>n</i> дыхание	affect v поражать
respiratory <i>a</i> дыхательный, pe-	affection n поражение
спираторный	purulent sputum гнойная мокро-
râle <i>n</i> хрип	та
chronic <i>a</i> хронический	dullness n тупость, приглушение
cough <i>n</i> кашель	shadow <i>n</i> , <i>v</i> тень, затемнять
space <i>n</i> пространство, промежу-	severe <i>a</i> резкий, сильный, тяже-
ток	лый, серьезный (о болезни)
inflammation n воспаление	

2. Translate the word combinations with the given key-words:

pneumonia: croupous pneumonia; specific pneumonia; bronchopneumonia; lobular pneumonia; catarrhal pneumonia

respiration: shallow respiration; accelerated respiration; bronchial respiration; deep respiration; respiratory disease; respiratory failure

râles: moist râles; bubbling râles; fine bubbling râles; crepitant râles; dry râles **cough:** continuous cough; productive cough; dry cough; intermittent cough; deep cough; painful cough

chronic: chronic lung disease; chronic bronchitis; chronic cough

space: axillary space; interscapular space; intercostal space; paravertebral space

3. Match Russian and English equivalents:

- 1) disorders of the respiratory systema) соотт2) the sudden onsetb) оцен3) pulse-respiration ratioc) колеб4) digestive dietd) отхај5) to promote resolutione) расст6) the site of infectionf) вызы7) daily fluctuations of temperatureg) незр8) to induce respirationy дет9) to assess the child's conditionh) легко10) to swallow the secretionsi) обил11) to produce expectorationsj) локал12) abundance of fresh airk) внеза13) to figure largely in the listl) заним14) immaturity of the respiratorym) спосorgans in childrenn) загла
 - а) соотношение пульса и дыхания
 b) оценить состояние ребенка
 c) колебания температуры в течение дня
 d) отхаркивать мокроту
 e) расстройства дыхательной системы
 f) вызывать (стимулировать) дыхание
 g) незрелость дыхательных органов
 y детей
 h) легкоусваиваемая диета
 i) обилие свежего воздуха
 j) локализация инфекции
 k) внезапное начало
 l) занимать важное место в списке
 m) способствовать рассасыванию
 n) заглатывать мокроту

4. Translate into Russian the following word-combinations:

respiration is shallow and accelerated; a severe form of pneumonia; at the height of the disease; moist bubbling râles and crepitation; to respond well to treatment; digestive diet; bronchopneumonia may be caused by pneumococci; onset is usually insidious; cough is continuous but often intermittent; the temperature shows daily fluctuation.

5. Translate into English the following word-combinations:

крупозная или долевая пневмония; бронхопневмония; начало долевой пневмонии внезапное; самые распространенные типы воспаления легких; легкий кашель; выявить бронхиальное дыхание; на стадии выздоровления; обилие свежего воздуха; незрелость дыхательных органов у детей; особенности дыхательной системы у детей.

6. Translate the following sentences into Russian:

1. The incidence of lobular pneumonia is high in early childhood. 2. Most râles of various force are auscultated in bronchitis, bronchopneumonia, and pulmonary edema. 3. In early age of child's life staphylococcus is often the cause of severe pneumonia. 4. Moist cough is symptomatic of bronchitis. 5. In pneumonia the cough is short and painful. 6. Oxygen and abundance of fresh air are indicated for infants at the height of pneumonia. 7. If the bronchi are chiefly affected and no signs of pneumonia are evident this disorder is diagnosed as bronchitis. 8. The most common site of infection in lobar pneumonia is the middle and lower lobes of the lungs. 9. The disorders of the respiratory system predominate in early childhood. 10. Pneumonia may have an insidious onset in newborn infants.

7. Read and translate the text. Make the plan of the text using key-words.

The Disorders of the Respiratory System in Children

A. Lobar Pneumonia

The disorders of the respiratory system still figure largely in the list of causes of death in infancy and childhood. The incidence and severity of respiratory system diseases are due to immaturity of the respiratory organs in children. The most common types of inflammation of the lungs are croupous or lobar pneumonia, and bronchopneumonia or lobular pneumonia (catarrhal pneumonia).

Lobar pneumonia is caused by pneumococci, streptococci, staphylococci. In lobar pneumonia one lobe or a portion of a lobe may become affected. The pathologic process often arises in the lower right lobe, then in the lower left and upper right lobes. The onset of lobar pneumonia is sudden. Pain in the side is often absent in children, especially young ones. Cough is usually slight or even absent. Respiration is shallow and accelerated. The pulse-respiration ratio falls to 2-3:1. The temperature may reach 40°C at the height of the disease.

Auscultation and percussion reveal bronchial respiration, dullness, moist bubbling râles and crepitation. On auscultation attention should be given to the following spaces: the axillae – early appearance of bronchial respiration in lobar pneumonia, the paravertebral spaces – frequent localization of bronchopneumonia in babies and interscapular space – onset of pneumonia.

Usually children ill with lobar pneumonia respond well to bed regimen, fresh air, light diet, good care and specific therapy consisting of sulfonamides and antibiotics. In the convalescent stage the deeper respirations induced by exercises as well as open-air life will tend to promote resolution of the consolidation in the lung.

B. Bronchopneumonia

Bronchopneumonia which predominates in childhood may be caused by pneumococci, streptococci or influenza bacilli. The site of the infection is limited to the pulmonary lobules. The onset of bronchopneumonia is usually insidious, its course is slower than in lobar pneumonia, and it may follow some other kind of respiratory infection (influenza, whooping cough, bronchitis). On auscultation and percussion bronchial breathing, fine moist râles and crepitation are found. Dyspnea and weakened cardiac activity are characteristic symptoms. Cough is usually present through the whole course of the disease, sometimes continuous, but more often intermittent. Due to the tendency of children to swallow the secretions from their lungs, it is unusual for them produce any expectoration. The temperature as a rule shows daily fluctuation and is usually expected to reach its maximum in the first few days.

Bed rest, abundance of fresh air, fluid, digestive diet and specific therapy with two antibiotics are usually helpful in controlling bronchopneumonia in children and infants.

The peculiarities of the child respiratory system should be fully appreciated, in assessing the child's condition adult standards not to be applied for examining the child's respiratory system.

8. Answer the questions using the text:

- 1. What disorders figure largely in the list of causes of death in infancy?
- 2. Why do disorders of the respiratory system still figure largely in the list of causes of death in infancy?
- 3. What part of the lung is affected in lobar pneumonia?
- 4. What is the onset of lobar pneumonia marked by?

- 5. What are characteristic features of cough, respiration and temperature in lobar pneumonia?
- 6. What do auscultation and percussion reveal in lobar pneumonia?
- 7. How many apices must one remember for a thorough examination of the lungs?
- 8. What does treatment of lobar pneumonia consists of?
- 9. What procedure tends to promote resolution of the consolidation in the affected lung?
- 10. What type of pneumonia predominates in childhood?
- 11. What is the site of infection in bronchopneumonia?
- 12. What is the course of bronchopneumonia?
- 13. What are the results of auscultation and percussion in bronchopneumonia?
- 14. What are characteristic symptoms of bronchopneumonia?
- 15. What treatment is helpful in controlling bronchopneumonia in children?

9. Give the English equivalents to the word combinations in brackets. Translate the sentences:

1. (Возбудителями долевой пневмонии) are pneumococci, streptococci, staphylococci. 2. (Начало долевой пневмонии) is sudden. 3. Respiration is (поверхностное и учащенное). 4. Auscultation and percussion (обнаруживают бронхиальное дыхание), dullness, moist bubbling râles and crepitation. 5. (Локализация инфекции) is limited to the pulmonary lobules. 6. (На стадии выздоровления) the deeper respirations induced by exercises and open-air life will tend to promote full recovery. 7. The onset of bronchopneumonia is usually (скрытое). 8. (Незрелость дыхательных органов) is responsible for the incidence of diseases of these organs in children. 9. (Особенности детской дыхательной системы) should be fully appreciated. 10. Bed regimen, (обилие свежего воздуха), fluid, (легкоусваиваемая диета) and specific treatment are helpful in controlling bronchopneumonia in children and infants.

10. Give the summary of the text according to your plan.

11. Read and translate the dialogue:

Doctor: Good morning.

Woman: Good morning, doctor.

Doctor: What troubles you?

Woman: My son is ill, doctor. He complains of a generalized aches and pains in his back and legs, headache. Also he has a sore throat and nonproductive cough. You see his face is flushed. He has chills and fever up to 39°C. Doctor: Let me examine him thoroughly... Your son has influenza. Woman: What should I do? **Doctor:** He should remain in bed. I administer him antipyretics and analgesics. 1 or 2 drops of 0.25% phenyleprine will relieve nasal obstruction. Gargles of warm isotonic saline and steam inhalation will be useful for sore throat. **Woman:** Thank you, doctor. **Doctor:** Not at all. Good bye. **Woman:** Good bye.

12. Make up your own dialogue "The doctor and the pediatric patient with some respiratory trouble". The following points are helpful: *Key points from the history*

- Is the child short of breath or wheezy (remember to define terms)?
- Is there stridor or croup?
- Is there a cough? Does it disturb sleep?
- Does anything trigger the symptoms: sport, cold weather, pets?
- Has the child expectorated or vomited any sputum?
- Is the infant short of breath during breast or bottle feeding?
- Is there a possibility the child could have inhaled a foreign body?
- Is there any FH (family history) of respiratory problems such as asthma or cystic fibrosis?
- Does the child have a fever?
- Has anyone else been unwell? Any contacts with tuberculosis?
- Has the child travelled abroad recently? How much school is missed? Can he/she play sport? How far can he/she run? Is sleep disturbed?

13. Translate the following sentences into English:

1. Основной симптом хронического бронхита – кашель. 2. Восприимчивость к бактериальной пневмонии обусловлена повреждением бронхиального эпителия. 3. Грипп и другие респираторные заболевания протекают у новорожденных тяжело. 4. Анатомо-физиологические особенности организма новорожденных объясняют частоту и тяжесть респираторных заболеваний по сравнению со взрослыми. 5. Мелкие пузырчатые хрипы, сопровождаемые астматическим дыханием, часто являются первым признаком начала пневмонии, особенно у младенцев. 6. Важным фактором в профилактике пневмонии является борьба с такими инфекционными заболеваниями, как грипп, корь, коклюш, которые часто осложняются пневмонией. 14. Read the text and give its abstract. Answer the question "What is necessary for a correct diagnosis of pneumonia?"

Pneumonia in Children

Although a large number of children are admitted to hospital with initial diagnosis of bronchopneumonia, this diagnosis is found to be correct in only a few of them. Bronchopneumonia in children may easily be confused with bronchitis or upper respiratory infection without broncho-pulmonary involvement. In some cases it is difficult to make an exact diagnosis and sometimes it remains undetermined until characteristic manifestations of the disease are evident.

The respiratory infection is more common in the first two years of life and may be associated with the mortality during this period. If the child is in a poor state of nutrition, death rate is particularly high.

A sudden onset is characteristic of specific pneumonia while a history of respiratory catarrh is often obtained in a case of aspiration pneumonia. Gastrointestinal and nervous complications are more frequent with specific pneumonia. In specific pneumonia X-ray examination shows affection of one or the other lobe while in aspiration pneumonia, there are lesions localized predominantly at the bases. Bacteriological examination shows growth of normal bacterial flora in patients with aspiration pneumonia. The leukocyte count is over 14, 000 in most of the patients with specific pneumonia but lower in those with aspiration pneumonia.

The research which has been carried out in this field shows that radiological and bacteriological investigations are necessary for a correct diagnosis.

15. Read the text. Translate it using a dictionary. Answer the question "What is the main idea of the text?"

Chronic Lung Disease of Prematurity

Chronic lung disease is a disturbing and confusing sequel of acute lung disease, prematurity, oxygen and ventilatory therapy, and possibly patent ductus arteriosus. Some form of chronic lung disease occurs in approximately 15% of premature infants requiring mechanical ventilation for pulmonary insufficiency. However, the incidence in infants with birth weights under 1 kg is 40-50%. There is a significant mortality and considerable morbidity (long-term dependence on oxygen and prolonged hospitalization) from these conditions.

Full recovery of the lung function usually occurs in the survivors anywhere from a few months to 3 years of age. However, the most severely affected may have life-long disability and some infants succumb to pulmonary infection during later infancy. There is confusion because of the variety of names applied to these syndromes and whether or not they are distinct entities or continuum of a single disorder. 16. Read the text. Translate the first part of the text in writing. Answer the questions "What are the symptoms of RDS?" and "What infants suffer from RDS more frequently?"

Respiratory Distress Syndrome

Respiratory distress syndrome, previously referred to as hyaline membrane disease, is the most common cause of respiratory failure in newborns. It occurs in infants with immature lungs who produce or release inadequate amounts of pulmonary surfactant. Diffuse atelectasis and reduced lung compliance are the major pathophysiological features. The incidence of RDS increases with decreasing gestational age. Infants who are asphyxiated, hypovolemic, or born of diabetic mothers are at increased risk.

Diagnosis.

A. Clinical Findings.

- Signs of respiratory distress are tachypnea, chest wall retractions, nasal flaring, expiratory grunting, and cyanosis.
- Other findings are systemic hypotension, oliguria, hypotonia, temperature instability, ileus, peripheral edema.
- Prematurity on gestational age assessment.

B. Chest X-ray film. Characteristic reticulogranular or ground-glass pattern and air bronchograms indicating diffuse atelectasis.

C. Biochemical findings.

- Amniotic fluid L/S ratio less than 2.0, and a negative (immature) shake test result using gastric aspirate or amniotic fluid.
- Absence of phosphatidylglycerol from the amniotic fluid.

Natural History

A. Pulmonary Insufficiency worsens during the first 24 to 48 hours and then plateaus.

B. Resolution is frequently preceded by increased urine output beginning between 60 and 90 hours of age.

17. Read the text and give the abstract of it:

Croup

Croup is a respiratory problem most common in children ages from two to four years. It may accompany a viral infection, such as a cold. The main symptom is a harsh cough that sounds like a bark. Fever of 100° to 101° F (37,7° to 38.3°C) is common. The child may become very frightened. Group usually gets worse at night and may last from one to seven days.

Home Treatment

- Stay calm. The child is already frightened and needs reassurance.

- Get moisture into the air to make it easier for the child to breathe. Take the child into the bathroom, turn on all hot-water faucets, then sit on the floor in the steamy room and read a story together.

- Bundle up and take the child outside for a walk in the cool fresh air. Cool moist air is best.

- Set up a vaporizer or croup tent in the child's bedroom. Put a vaporizer under the crib and drape a blanket over the head of the crib to trap the moisture near the child's head. If the child is older and no longer in a crib, drape the blanket over an umbrella or card table. Stay with your child to be sure the blanket doesn't fall. With a cold-mist vaporizer, the air will be quite cold. Dress the child in warm pajamas and place a sheet over the blanket to catch moisture. Don't worry about your child getting chilled. The cool, moist air is the important part.

- If the child starts crying, this may be a positive sign that he is breathing more normally.

18. Read the text and give the abstract of it:

The Common Cold

Common colds, like other virus infections of the respiratory tract, have so far eluded all attempts at their control; neither vaccines nor drugs have made any significant impact on the very successful causal parasites. However, since the first common cold viruses were cultivated approximately 20 years ago, research has produced a great deal of knowledge about the viruses themselves and their epidemiological and pathological potentialities, and there is now a firm base from which attempts to prevent or treat these infections can be directed.

The clinical features of an uncomplicated common cold are well known. The incubation period lasts about two days and is followed by a nasal obstruction, rhinorrhea, sneezing, "scratchiness" or soreness of the nasopharynx, cough and sometimes hoarseness, lasting up to a week. Fever or other constitutional symptoms and lower respiratory symptoms are unusual. The syndrome has been shown to result from acute infection of the epithelial cells of the upper respiratory tract, for which common cold viruses have a specific tropism. The epithelial cells are destroyed as the viruses multiply in them, with consequent mechanical damage to the mucociliary transport mechanism. To this inflammatory reaction, edema and excessive secretion are added.

Infectious rhinitis, the common cold, is due to a variety of viruses, although two groups, the rhinoviruses and the coronaviruses, are of major importance. However, other respiratory viruses which are capable of producing more severe illness, particularly in children, may also sometimes cause symptoms of the common cold.

These include influenza viruses and adenoviruses. For common colds in adults, a present estimate is 40 to 50% due to rhinoviruses and 15 to 20% due to coronaviruses.

Infections occur all year round, but there is a peak of prevalence in autumn and often another in spring. More than one virus type may be present at the same time within a family, and within larger communities, such as students, many types will be circulating concurrently and the prevalent types will vary from year to year. Attempts have been made in order to determine whether any particular serological types are consistently common in different geographical areas. This is unfortunately not so; if it were vaccination might produce an overall effect on the incidence of colds.

19. Read the text and say what one should do to avoid colds.

Control of Colds

Many attempts have been made to prove that vitamin C (ascorbic acid) can prevent or abort colds. Many of the experiments were poorly controlled and do not stand up to scientific scrutiny. However, a few well-designed and well-conducted experiments have been done, using doses of ascorbic acid up to 3 or even 4 g per day. Most of these studies have given negative or, in a few cases, marginally positive results; the latter have usually shown reduced severity and duration of colds rather than a reduction in their number, but positive results have not always been confirmed on further testing. However, ascorbic acid in moderate doses is probably relatively harmless, though gastro-intestinal symptoms (nausea and diarrhea) may occur; prolonged high dosages increase urinary excretion of oxalate and may encourage the formation of calculi. A detailed evaluation of the evidence on the efficacy and toxicity of ascorbic acid was undertaken by Dykes and Meier (1975).

Based on present knowledge of the epidemiology and spread of rhinovirus infection a few common-sense prophylactic measures can be suggested. Patients with chronic bronchitis and asthma, young children in particular should if possible avoid close and prolonged contact with people in the acute stages of colds. If the manual route of infection is assumed to be significant, frequent washing of the hands and avoidance of fingering the conjunctivae or the nostrils may help to reduce the rates of infection.

20. Read the text and give the abstract of it:

Influenza

Epidemiology. Influenza A virus is the most frequent cause of clinical influenza. Spread is by person-to-person contact and airborne droplet spray. Infection produces sporadic respiratory illness every year. Acute epidemics usually occur about every 3 years, generally nationwide during late fall or early winter. A major shift in the prevalent antigenic type of influenza A virus occurs about once in a decade and results in an acute major epidemic. Persons of all ages are afflicted, but prevalence is the highest in school children, and severity is the greatest in the very young, aged, or infirm. Epidemic illness occurs in two waves – the first in students and active family members, the second mostly in shut-ins and persons in semi-closed institutions.

Influenza B causes epidemics about every 5 years and is much less often associated with pandemics. Influenza C is an endemic virus which sporadically causes mild respiratory disease.

Symptoms and Signs. The incubation period is about 48 hours. Transient viremia may occur before infection localizes in the lower respiratory tract. Influenza A or B is sudden in onset, with chills and fever up to 39.5 °C (103 °F) developing over 24 hours. Prostration and generalized aches and pains (most pronounced in the back and legs) appear early. Headache is prominent. Respiratory tract symptoms may be mild at first, with sore throat, substernal burning, nonproductive cough, and sometimes coryza, but later become dominant. Cough may become severe and productive. The skin, especially on the face, is warm and flushed. The soft palate, posterior hard palate, tonsillar pillars, and posterior pharyngeal wall may be reddened but there is no exudate. The eyes water easily and the conjunctiva may be mildly inflamed. After 2 to 3 days acute symptoms subside rapidly and fever ends. Weakness, sweating and fatigue may persist for several days or occasionally for weeks.

Treatment. Treatment is symptomatic. The patient should remain in bed or rest adequately and avoid exertion during the acute stage and for 24 to 48 hours after the temperature becomes normal. If situational symptoms of acute uncomplicated influenza are severe, antipyretics and analgesics are help-ful. To relieve nasal obstruction, 1 or 2 drops of 0.25% phenylephrine may be instilled into the nose periodically. Gargles of warm isotonic saline are useful for sore throat. Steam inhalation may alleviate respiratory symptoms and prevent drying of secretions.

21. Read the text and give the abstract of it:

Acute Bronchitis

Acute bronchitis is an acute inflammation of the tracheobronchial tree, generally self-limiting and with eventual complete healing and return of function. Though commonly mild, bronchitis may be serious in debilitated patients and in patients with chronic pulmonary or cardiac disease. Pneumonia is a critical complication.

Étiology. Acute infectious bronchitis, most prevalent in winter, may develop following the common cold or other viral infection of the nasopharynx, throat, or tracheobronchial tree, often with secondary bacterial infection. Exposure to air pollutants and possibly chilling, fatigue and malnutrition are predisposing or contributory factors.

Acute irritative bronchitis may be caused by mineral and vegetable products of various kinds; fumes from strong acids; or tobacco smoke.

Symptoms and Signs. Preliminary symptoms are coryza, malaise, chills, slight fever, back and muscle pain, and sore throat. Onset of cough usually signals onset of bronchitis. The cough is initially dry and non-productive, but small amounts of sputum are raised after a few hours or days. The sputum later becomes more abundant and mucoid or mucopurulent. Purulent sputum suggests bacterial infection. In severe uncomplicated cases fever to 38.3 °C or 38.9 °C (101 °F or 102 °F) may be present for up to 3 or 5 days. Persistent fever suggests complicating pneumonia.

Treatment. General: rest is indicated until fever subsides. Fluids (up to 3000 or 4000 ml/day) are forced during the febrile course. An antipyretic analgesic such as aspirin relieves malaise and reduces fever.

Local: a cough mixture may be used if cough is troublesome and interferes with sleep.

Antibiotic: indicated when complicating factors or purulent sputum are present, or when high fever persists and the patient is more than mildly ill.

22. Revision questions:

- 1. What diseases are more common in the first two years of life? Why?
- 2. What is chronic lung disease?
- 3. What infants are more subjected to chronic lung disease?
- 4. What is the main symptom of croup?
- 5. What does the treatment of croup consist of?
- 6. What is common cold characterized by?
- 7. Is there any treatment for the common cold?
- 8. Is vitamin C helpful in control of cold or not?
- 9. What type of influenza can cause epidemic?
- 10. How does influenza spread?
- 11. When does acute bronchitis occur more often?
- 12. How should one treat acute bronchitis

Unit 6. Cardiovascular Diseases in Childhood

1. Read and learn by heart:

ACTIVE VOCABULARY

defect *n* дефект, порок atrial septal defect (ASD) дефект межпредсердной перегородки (дефект между предсердиями, чаще вызванный незаращением овального окна) congenital *a* врожденный cyanosis n цианоз (синеватый или пурпурный оттенок кожи и слизистых оболочек) **cyanotic** *а* цианотичный, синюшный cvanotic heart disease порок сердца "синего" типа, "синий" порок сердца acyanotic a ацианотичный (характеризующийся отсутствием шианоза) acianotic heart disease "белый" порок сердца Tetralogy of Fallot (TOF) тетрада Фалло transposition of great arteries (TGA) транспозиция магистральных сосудов

aortic stenosis аортальный стеноз (патологическое сужение аортального клапана) pulmonary stenosis стеноз легочного ствола identify v идентифицировать hole *n* отверстие displaced смещенный oxygen-rich blood кровь, обогащенная кислородом oxvgen-low blood кровь с низким содержанием кислорода **finger** *n* палец (на руке) **toe** *n* палец (на ноге) lack *n* нехватка, отсутствие experience v испытывать, переносить fainting *n* обморок episode *n* приступ sweating *n* потение, потоотделение delayed задержанный

2. Translate the word combination with the given key-words:

defect: a congenital heart defect, a birth defect, atrial septal defect, ventricular septal defect. There are over 30 different types of heart defects. **cyanotic:** a cyanotic heart disease, a cause of cyanotic heart disease. Children

with cyanotic heart disease are usually small for their age.

acyanotic: acyanotic heart disease, symptoms of acyanotic heart disease. Babies born with acyanotic heart disease may not have any apparent symptoms. **experience:** to experience symptoms of breathlessness, to experience attacks of chest pain and fainting. Children with cyanotic heart disease often experience episodes of hypoxia.

3. Match Russian and English equivalents:

- 1) oxygen-rich blood
 2) require emergency surgery
 3) poor appetite and feeding difficulties
 4) to receive enough oxygen
 5) a narrowing of the pulmonary
- valve
- 6) open heart surgery
- 7) a hole between the left and right ventricles
- 8) a combination of four different heart defects
- 9) oxygen-low blood
- 10) to contain enough oxygen
- 11) blue-coloured fingers
- 12) a Blalock-Taussig shunt

- а) кровь с низким содержанием кислорода
- b) пальцы синего цвета
- с) отверстие между левым и правым желудочками
- d) содержать достаточно кислорода
- е) анастомоз (шунт) Блалока-Тоссига
- f) совокупность четырех разных пороков сердца
- g) кровь, обогащенная кислородом
- h) сужение легочного клапана
- і) получать достаточно кислорода
- j) операция на «открытом» сердце
- k) требовать срочной операции
- l) плохой аппетит и проблемы
 - с кормлением

4. Translate the following sentences into Russian:

1. The heart is essentially a pump that is made up of four chambers: the left atrium, the left ventricle, the right atrium, and the right ventricle. 2. There are also four valves that control how the blood flows through the heart and around the body: the mitral valve, the aortic valve, the tricuspid valve, and the pulmonary valve. 3. The heart's purpose is to supply oxygen-rich blood to the body's cells and tissues. 4. Congenital heart disease develops when abnormalities in the heart structure prevent it from working as it should. 5. An infection during pregnancy, such as rubella, can cause congenital heart disease. 6. Half of all babies born with congenital heart disease will require immediate surgery after birth, while the other 50% will probably require surgery or medication at some point during their childhood. 7. Due to advances in heart surgery, 85% of children with congenital heart disease, it may be necessary to remove the damaged heart and replace it with a healthy one.

5. Read the text and give the examples of two main types of congenital heart disease.

Congenital heart disease is a general term that is used to refer to a series of birth defects that affect the heart.

Types of Congenital Heart Disease

There are over 30 different types of heart defects. The two main types of congenital heart disease are cyanotic heart disease and acyanotic heart disease.

- Cyanotic heart disease: problems with the heart mean that there is not enough oxygen present in the blood (e.g. Tetralogy of Fallot (TOF), Transposition of the great arteries (TGA).
- Acyanotic heart disease: the blood contains enough oxygen but it is pumped abnormally around the body (e.g. Aortic stenosis, Atrial septal defect (ASD).

6. Read and translate the text. Make the plan of the text using key-words. Tetralogy of Fallot

Tetralogy of Fallot (TOF) is the most common cause of cyanotic heart disease. TOF is not one heart defect but a combination of four different heart defects. Tetralogy is a Greek word that means 'four-fold', and Fallot is the name of the doctor who first identified the condition. In cases of TOF, there are four defects that affect the heart:

- A hole between the left and right ventricle (Ventricular Septal Defect).
- A narrowing of the pulmonary valve (pulmonary stenosis).
- The muscles of the right ventricle are unusually thick (right ventricular hypertrophy).
- The aortic valve is in the wrong position (displaced aorta).

As a result of this complex set of heart defects, oxygen-rich blood and oxygen-low blood become mixed. This leads to blood with a lower-than-normal oxygen content being pumped around the body.

As the body's cells and tissue are not receiving enough oxygen, the child will develop symptoms of cyanotic heart disease, such as blue-coloured fingers, toes and lips as a result of a lack of oxygen. They also experience symptoms of breathlessness, fainting, chest pains, fatigue, and episodes of hypoxia. Hypoxia occurs when the body is suddenly starved of oxygen. There are some common symptoms that are present in both cyanotic and acyanotic heart disease. These include poor appetite and feeding difficulties, sweating, particularly when a baby is feeding, and delayed growth. Children with TOF are usually underweight and small for their age.

7. Answer the questions:

- 1. What is the main cause of cyanotic heart disease?
- 2. How many defects are there in case of Tetralogy of Fallot? What are they?
- 3. Why does the body suffer from insufficiency of oxygen?
- 4. What symptoms does the child develop in cyanotic heart disease?
- 5. What symptoms are common for both cyanotic and acyanotic heart disease?

8. Translate into English the following word-combinations:

«белый» порок сердца; тетрада Фалло; испытывать приступы гипоксии; тяжелые симптомы отдышки; причина порока сердца «синего» типа; кровь с низким содержанием кислорода; обморок; анастомоз Блалока-Тоссига; срочная операция; врожденный порок сердца

9. Find the synonyms for the following words in the texts:

1. opening (<i>n</i>)	6. shortness of breath (<i>n</i>)
2. blue skin (n)	7. damage (v)
3. develop (v)	8. respiratory (a)
4. sufficient amount (<i>n</i>)	9. tiredness (n)
5. sign (<i>n</i>)	10. perspiration (n)

10. Translate the words in brackets into English:

1. (Врожденный порок сердца) is the most common type of birth defect, with six out of every 1,000 babies being born with the condition. 2. Half of all babies born with congenital heart disease (требуют срочной операции) after birth. 3. (Дефект межжелудочковой перегородки) is the most common cause of acyanotic heart disease. 4. As the aortic valve is the main route (для крови, обогащенной кислородом) to supply the body, the narrowing can lower the body's oxygen supply. 5. Babies and children with TOF (испытывают приступы цианоза), which can sometimes be severe. 6. The symptoms of cyanotic heart disease include (одышку, обморок и приступы гипоксии).

11. Read and translate the text in written form.

Treatment of Tetralogy of Fallot

Babies born with Tetralogy of Fallot (FOT) who are experiencing severe symptoms of breathlessness may require emergency surgery to restore normal lung function. This can be done using a procedure known as a Blalock-Taussig shunt (a BT shunt). During a BT shunt, an artery is diverted (or shunted) into the lungs so that a supply of oxygen-rich blood becomes available. Further open heart surgery is then recommended when the baby is old enough to withstand the after-effects of surgery. During open heart surgery, the defect between the ventricles is sealed and the pulmonary valve is widened.

12.From the list below choose the necessary word to fit each blank:

oxygen-rich blood; affect; experience; the pulmonary valve; require; breathlessness; open heart surgery

1. Many children with congenital heart defects ... delays in their development, such as walking or talking. 2. Some children with congenital heart disease have associated learning difficulties and ... specialised educational and psychologi-

cal assistance. 3. In cases of medium to large – sized defects, ... is necessary. 4. In pulmonary stenosis, ... is unusually narrow. 5. The ... is transported to the body's cells and tissues, which remove the oxygen from the blood. 6. To understand how congenital heart disease can ... a child's heart and general health, it is useful to understand how a healthy heart works. 7. Children often adopt a squatting posture which can help to relieve the symptoms of

13. Give the summary of the texts "Tetralogy of Fallot" and "Treatment of Tetralogy of Fallot".

14. Read and translate the text. Make up the plan of the text using key words:

Atrial Septal Defect

Atrial septal defect (ASD) is the most common cause of acyanotic heart disease. In cases of ASD the hole is between the left and right atria. ASD occurs during fetal development of the heart and is present at birth. During the first weeks after conception, the heart develops. If a problem occurs during this process, a hole in the atrial septum may result.

In some cases, the tendency to develop an ASD may be genetic. There can be genetic syndromes that cause extra or missing pieces of chromosomes that can be associated with ASD. For the vast majority of children with a defect. however, there's no clear cause of the ASD. The size of an ASD and its location in the heart will determine what kinds of symptoms a child experiences. Most children who have ASDs seem healthy and appear to have no symptoms. Generally, kids with an ASD feel well and grow and gain weight normally. Infants and children with larger, more severe ASDs, however, may possibly show some of the following signs or symptoms: poor appetite, poor growth, fatigue, shortness of breath, lung problems, and infections, such as pneumonia. If an ASD is not treated, health problems can develop later, including an abnormal heart rhythm (known as an atrial arrhythmia) and problems in how well the heart pumps blood. As kids with ASDs get older, they may also be at an increased risk for stroke, since a blood clot that develops can pass through the hole in the wall between the atria and travel to the brain. Fortunately, most kids with ASD are diagnosed and treated long before the heart defect causes physical symptoms. Because of the complications that ASDs can cause later in life, pediatric cardiologists often recommend closing ASDs early in childhood.

15. Answer the questions:

- 1. What is Atrial septal defect?
- 2. When does ASD develop?
- 3. What is ASD caused by?

- 4. What symptoms does a child with ASD experience?
- 5. What factors influence the presence of the signs?
- 6. What health problems can develop without treatment of ASD? Why?
- 7. What procedure should be taken to avoid possible complications?

16. Give the Russian equivalents:

a fetal development of the heart; after conception; size and location; severe ASD; poor growth; risk for stroke; to cause physical symptoms; to seem healthy; signs or symptoms; possible complications

17. Give the English equivalents:

присутствовать при рождении; отверстие; ясная причина; набирать вес; проявлять признаки; усталость; аритмия предсердий; становиться старше; сгусток крови; детский кардиолог

18. Translate into English:

1. Дефект межпредсердной перегородки – это врожденный порок сердца, при котором стенка, которая разделяет предсердия, содержит отверстие. 2. Это отверстие обычно закрывается к тому времени, когда ребенок рождается. 3. Если отверстие не закрылось, то кровь поступает из левого предсердия в правое. 4. Если слишком много крови поступает в правую часть сердца, давление в легких повышается. 5. Если дефект межпредсердной перегородки маленький, ребенок не испытывает больших проблем со здоровьем. 7. При тяжелых случаях у ребенка могут проявляться такие симптомы, как плохой аппетит, усталость, частые респираторные инфекции.

19. Read the text and answer the question: "What treatment is recommended in case of ASD?"

Treatment of ASD

If a child is diagnosed with an atrial septal defect, the recommended treatment will depend on the size of the defect.

If the defect is small, a policy of "watchful waiting" may be recommended, where a child receives no immediate treatment but his/her health is carefully monitored. This is because 90% of small defects close as the child grows older.

In cases of mild to medium-sized defects, it may be possible to seal the defects using a catheter. The catheter is guided to the site of the hole, and specially designed mesh is passed through the catheter to seal the defect.

In cases of medium to large-sized defects, open heart surgery is required.

20. Give the summary of the texts "Atrial Septal Defect" and "Treatment of ASD".

21. Read and translate the dialogue. Act it out.

At the consultation

Parent: What causes congenital heart defects?

Professor: If you have a child with a congenital heart defect, you may think you did something wrong during your pregnancy to cause the problem. However, most of the time doctors don't know why congenital heart defects develop. **Parent:** But still what factors cause them?

Professor: Heredity may play a role in some heart defects. For example, a parent who has a congenital heart defect may be more likely than other people to have a child with the condition. Children with genetic defects often have congenital heart defects. An example of this is Down syndrome – half of all babies with Down syndrome have congenital heart defects.

Parent: What are the signs and symptoms of congenital heart defects?

Professor: Many congenital heart defects have few or no symptoms. Severe defects can cause symptoms usually in newborn babies, such as rapid breathing, cyanosis, and tiredness.

Parent: Do defects cause pain?

Professor: No, they don't cause chest pain or other painful symptoms.

Parent: How can defects be detected?

Professor: Abnormal blood flow through the heart caused by a heart defect will make a certain sound. Your doctor can hear this sound, called a heart murmur, with a stethoscope. However, not all murmurs are a sign of a congenital heart defects. It's recommended to perform special cardiovascular tests.

22. Read the text and give its annotation:

Further Testing

Echocardiogram

This test, which is harmless and painless, uses sound waves to create a moving picture of your child's heart. During an echocardiogram, reflected sound waves show the structure of the heart. The test allows the doctor to clearly see any problem with the way the heart is formed, and the way it's working.

An echocardiogram is an important test for both diagnosing a heart problem and following the problem over the time. In children with congenital heart defects, an echocardiogram will outline the problems with the heart structure and show how the heart is reacting to these problems. The echocardiogram will help your child cardiologist if treatment is needed.

During pregnancy, if your doctor suspects that your baby has a congenital heart defect a special test called a fetal echocardiogram can be done. If your child is diagnosed with a congenital heart defect before birth, your doctor can plan treatment before the baby is born.

Electrocardiogram (ECG)

An ECG detects and records the electrical activity of the heart. An ECG shows how fast the heart is beating and whether the heart rhythm is steady or irregular. It can also detect if one of the heart chambers is enlarged, which can help diagnose a heart problem.

Chest X-ray

A chest x-ray takes a picture of the heart and lungs. It may reveal cardiac enlargement and aortic dilation. It also assesses pulmonary circulation and shows whether the lungs have extra blood or fluid, which can be a sign of heart failure.

Pulse Oximetry

Pulse oximetry shows how much oxygen is in the blood. A sensor is places on the child's fingertip or toe (like an adhesive bandage). The sensor is attached to a small computer unit, which displays a number that indicates how much oxygen is in the blood.

Cardiac catheterization

During cardiac catheterization, a thin, flexible tube called a catheter is passed through a vein in the arm, groin (upper thigh), or neck to reach the heart. A dye that can be seen on an x-ray is injected through the catheter into a blood vessel or a chamber of the heart. This allows the doctor to see the flow of blood through the heart and blood vessels.

Cardiac catheterization also can be used to measure the pressure inside the heart and blood vessels and to determine whether blood is mixing between the two sides of the heart. It's also used to repair some heart defects.

Unit 7. INFECTIOUS DISEASES OF CHILDHOOD

1. Read and learn by heart:

ACTIVE VOCABULARY

acquired infection приобретенная инфекция direct contact прямой контакт causative agent возбудитель pathogenic microorganism патогенный (болезнетворный) микроорганизм vaccine *n* вакцина innate immunity врожденный иммунитет penetrate v проникать communicable, contagious, infectious a заразный, инфекционный measles n корь whooping cough n коклюш mumps n свинка quinsy n ангина scarlet fever скарлатина chickenpox n ветряная оспа (ветрянка) smallpox *n* оспа period of decline период спада (болезни) convalescence *n* выздоровление suppurative *a* гнойный, гноеродный resistance *n* сопротивляемость exposure *n* подвергание, выставление spread, disseminate *v* распространять(ся)

2. Translate the word combinations with the given key-words:

infection: acute infection; viral infection; childhood infection; acquired infection by direct contact; acquired infection by indirect contact; chronic infection **vaccine**: live vaccine; dead vaccine; modified vaccine; virus vaccine **inoculation**: prophylactic inoculation; artificial inoculation; inoculation against

infectious disease; full course of inoculation

immunity: natural immunity; acquired immunity; temporary passive immunity; immunity against contagious disease; active immunity; innate immunity **injection:** to give intramuscular injection; to give intravenous injection; to give subcutaneous injection; tuberculin injection; injection against communicable disease

period: incubation (latent) period; prodromal period; invasion period; active period; period of decline

3. Match Russian and English equivalents:

1) to have a harmful effect on	a) вид инфекции
2) the chief source of infection	b) or a the the the properties
2) the chief source of infection 2) by direct/indirect contact	
4) the mode of infection	d) аказат разное рандина
	и) оказать вредное влияние
5) to remove a quarantine	на кого-лиоо/что-лиоо
6) to penetrate through an abrasion or wound	е) проникать через ссадину или рану
7) pyogenic bacteria	f) основной источник инфекции
8) the pathologic material withdrawn from the body	g) способность организма сопротив- ляться инфекции
9) to prove of great diagnostic value	h) четко определенные фазы (стадии)
10) clearly defined stages	 i) патологический материал, взятый из организма

11) temporary passive immunity12) the capacity of the body to resist infection j) гноеродные бактерииk) посредством прямого/непрямого контактаl) снять карантин

4. Translate into Russian the following word-combinations:

the most common sources of infection; become contaminated; according to specific way of invasion; to be disseminated; to be spread through the respiratory tract; to identify the causative agent; pathological material withdrawn from the body; the characteristic feature; a specific capacity; setting up a hygienic atmosphere.

5. Translate into English the following word-combinations:

основной источник инфекции; во время кашля; проникать через ссадины и раны; период спада (болезни); естественный и приобретенный иммунитет; профилактические меры; вакцинация; возбудитель; осложнения; снизить смертность.

6. Translate the following sentences into Russtan:

1. The wound was infected with bacteria. 2. We must isolate the patient to prevent the spreading of the infection. 3. There are still a lot of children to be vaccinated. 4. The medicine to be prescribed is absolutely harmless. 5. We know many infectious diseases to be caused by bacteria. 6. The new vaccine against diphtheria is reported to be used successfully. 7. To prevent the spread of infection the children were isolated. 8. If no action were taken infection may enter the body through skin cuts or abrasions or the eyes, it may also be swallowed. 9. Any method which kills bacteria and fungi but allows some spores or viruses to survive cannot be called sterilization. 10. The Russian biologist I. Mechnikov concluded that the purpose of inflammation was to bring phagocytic cells to the injured area to engulf invading bacteria. 11. If there has been no vaccination or prior exposure to disease, acquired immunity is not present. 12. If an infection is too virulent, or the body resistance too weak, the white cells are unable to contain the infection and it can spread throughout the body.

7. Read and translate the text. Make the plan of the text using key-words.

Infectious diseases of childhood

Infectious diseases are known to be caused by the invasion and growth of microorganisms in the human body. The most common source of infection in medical practice is direct contact with a patient's blood and saliva; consequently instruments and equipment used in the course of treatment become contaminated. So the chief source of infection is direct or indirect contact with the patient himself.

According to specific ways of invasion contagious diseases may be classified into four groups. Intestinal infections composing the first group are disseminated principally by the intestinal discharges, such as dysentery, typhoid fever, cholera etc. During coughing or talking infection is spread through the respiratory tract. The diseases of this group are diphtheria, smallpox and others. Infectious diseases in which the infecting organism penetrates through an abrasion or wound of the skin or mucous membranes are septicemia, gonococcus infection, toxemia etc. The diseases of the fourth group are spread by living insects. All these diseases, of which encephalitis is an example, are called blood infections.

In order to identify the causative agent bacteriological studies are performed. They help to detect such microorganisms by direct examination under the microscope of the patient's blood, urine, stools, sputum or any pathological material withdrawn from the body. The direct identification of the infecting agent being impossible, the proper test is used.

The characteristic feature of acute infectious diseases is their cyclic course. There are clearly defined stages in the course of infectious diseases: incubation (latent period), prodromal period, invasion period, active period, period of decline, convalescence.

The human organism is known to have a specific capacity of resistance against infection, which is called immunity, it being natural and artificial. It is provided by certain white blood cells which release antibodies and antitoxins into the blood plasma. Natural immunity to certain infections may be transmitted from a parent to an offspring. A temporary passive immunity is transmitted from mother to her infant both through the placental circulation and through the breast milk. Acquired immunity may follow a spontaneous attack of disease, the artificial inoculation of a modified virus, vaccine injections, injections of antitoxic and antibacterial sera. Immunization against communicable diseases is the most significant primary preventive measure nowadays.

The treatment of infectious disease includes the methods directed against the causative agent and its toxins, as well as the microbes of the secondary complication (treatment with sera, sulfa drugs, antibiotics), and the methods which favourably influence the reactivity of the organism and the patient's emotional tone (blood transfusion, administration of blood plasma and serum, gamma globulin, physiotherapy, etc.). In addition, the complex of pathogenic therapy includes setting up a hygienic atmosphere for the patient, good care and proper diet.

The principles of pathogenic therapy being applied by pediatric institutions the mortality from infections has been reduced in our country.

8. Answer the questions using the text:

- 1. What are infectious diseases caused by?
- 2. What are the sources of infections?
- 3. What is the classification of contagious diseases according to the mode of infection?
- 4. What are the ways of detecting microorganisms?
- 5. What stages are defined in the course of infectious diseases?
- 6. What is immunity?
- 7. What are the kinds of immunity?
- 8. What is the primary measure of preventing communicable diseases?
- 9. What does the treatment of infectious diseases consist of?
- 10. What has helped to reduce the mortality rate from infections?

9. Give the English equivalents to the word combinations in brackets. Translate the sentences:

1. (Заразные заболевания) are classified according to the mode of infection.

2. Bacteriological studies are performed (чтобы определить возбудителя). 3. The cyclic course (острых инфекционных заболеваний) is their characteristic feature. 4. Immunization against contagious diseases is (первостепенная профилактическая мера). 5. (Вследствие врожденного иммунитета) the incidence of scarlet fever is rare during the first six months of life. 6. Scarlet fever may bring about (тяжелые осложнения). 7. If the individual were in a healthy state, a large quantity (заразных микроорганизмов, вторгающихся в тело) would be destroyed. 8. If (определенные гигиенические меры) had been carried out we should have prevented the last year fatal epidemics. 9. In addition to smallpox and yellow fever, viruses cause such human diseases as (свинка, корь, полиомиелит, ветряная оспа), Japanese B encephalitis, infectious hepatitis, influenza and probably the common cold.

10. Replace the word combinations in **bold** type with active vocabulary. Translate the sentences:

1. Infectious diseases may result from direct contact with patients or from indirect one. 2. Immunization is primary prophylactic measure against contagious diseases. 3. Infecting microorganism may produce poison. 4. If the reaction against entering bacteria is insufficient, vaccine may be injected subcutaneously to produce a more active resistance of the protective mechanisms of the body. 5. The ill person must be given vaccination lest he should become infected. 6. It is likely that the symptoms should recur since the process of inflammation has not been controlled yet. 7. The general symptoms of diphtheria are high temperature, headache, backache, weak and irregular pulse. 8. The bacteriologist was sure that the blood smear would reveal cocci.

11. Give the summary of the text "Infectious diseases of childhood" according to your plan.

12. Read and translate the text.

Chickenpox

Chickenpox is a common viral illness characterized by acute onset of generalized vesicular rash and fever. It is a common illness among kids, particularly those under age 12. More than 90% of unvaccinated contacts become infected. The incubation period of chickenpox ranges from 9 to 21 days. Infectious period begins 2 days before onset of clinical symptoms and lasts until all lesions have crusted. Peak incidence is in the springtime. Most patients will have lifelong immunity following an attack of chickenpox. Symptoms usually go away without treatment, but as the infection is highly contagious, an infected child should stay home until the symptoms are gone.

An itchy rash of spots that look like blisters can appear all over the body and may be accompanied by flu-like symptoms: fever (37,7°–38,8° C), chills, backache, generalized malaise, headache, abdominal pain, sore throat. Symptoms are generally more severe in adults. Initial lesions generally occur on the trunk (centripetal distribution) and occasionally on the face; these lesions consist primarily of 3 to 4 mm red papules with an irregular outline and a clear vesicle on the surface (dew drops on a rose petal appearance). Intense pruritus generally accompanies this stage. New lesion development generally ceases by the fourth day with subsequent crusting by the sixth day. Lesions generally spread to the face and the extremities (centrifugal spread). Patients generally present with lesions at different stages at the same time. Crusts generally fall off within 5 to 14 days. Fever is usually highest during the eruption of the vesicles; temperature generally returns to normal following disappearance of vesicles. Signs of potential complications (e.g. bacterial skin infections, neurologic complications, pneumonia, hepatitis) may be present on physical examination. Mild constitutional symptoms (e.g. anorexia, myalgias, headaches, restlessness) may be present (most common in adults). Excoriations may be present if scratching is prominent.

Diagnosis is usually made based on patient's history and clinical presentation. Laboratory evaluation is generally not necessary. CBC (*complete blood count*) may reveal leukopenia and thrombocytopenia. Serum varicella titers (significant rise in serum varicella IgG antibody level), skin biopsy, or Tzanck smear are used only when diagnosis is in question. Use antipruritic lotions for symptomatic relief, avoid scratching to prevent excoriations and superficial skin infections, use a mild soap for bathing; hands should be washed often, particularly before eating and after using a bathroom.

Use acetaminophen for fever and myalgias; aspirin should be avoided because of the increased risk of Reye's syndrome. Pruritus from chickenpox can be controlled with antihistamines (e.g. hydroxyzine 25 mg q6h *every 6 hours*) and oral antipruritic lotions (e.g. calamine). Oral antibiotics are not routinely indicated and should be used only in patients with secondary infection and infected lesions (most common infective organisms are *Streptococcus* sp. and *Staphylococcus* sp.).

Pregnant women should not be near a person with chickenpox. There is a risk for the fetus to have birth defects. But if she has had chickenpox before pregnancy, the baby will be protected from infection for the 1st few months of life, since the mother's immunity gets passed on to the baby through placenta and breast milk.

(Taken from Ferri's Clinical Advisor 2008, 10th ed)

13. Read and translate the text. Give the annotation of the text.

Scarlet Fever

The incidence of scarlet fever is the highest during the second five years of life. Infants are rarely attacked, but after the age of six month their innate immunity gradually wanes.

Although there are several ways in which the disease may be disseminated the most common is by direct transmission of organisms from the nasal and aural secretions, and in certain instances from the discharge of otitis media of an active or convalescent case. Hemolytic streptococcus of group A is commonly associated with scarlet fever.

The usual incubation period is three days, variations being from 12 hours to 6 days. The onset is usually sudden and is accompanied by chillness, vomiting, headache and sore throat. As in diphtheria and acute tonsillitis, the child often makes no complaints of sore throat, which may only be discovered on routine examination.

The face is flushed and the skin feels hot and dry. In children a rapid pulse rate out of proportion to the height of temperature is one of the features of the disease. The rash appears in 24 to 40 hours. Occasionally it arises simultaneously with the first symptoms, or may be delayed until the fifth or sixth day of the disease. The usual duration of rash is three days, a profuse rash causing considerable itching. In most cases the tongue quickly becomes covered with white fur, through which the swollen papillae protrude as red points. The temperature continues to rise with the progressive development of the rash. Later defervescence occurs *pari passi* with the disappearance of the rash and reaches the normal by lysis at about the seventh to tenth day of the illness.

Examination of the blood reveals a marked polymorphonuclear leucocytosis. Eosinophilia is also found, varying with the stage and severity of the disease. With the subsidence of the febrile symptoms desquamation sets in, usually towards the end of the first week, but it may begin with the rash still present, or be delayed for some weeks.

Scarlet fever may bring about serious complications such as otitis, nephritis, rheumocarditis, endocarditis, myocarditis, lymphadenitis, mastoiditis, pneumonia. Cardiac disorder commonly called "cor scarlatinosum" is rather typical complication after scarlet fever. The symptoms of scarlatinous heart were first described by the founder of pediatrics N. Filatov.

The treatment for scarlet fever consists of giving antibacterial and antistreptococcal preparations. The use of penicillin and other antibiotics not only relieves the clinical course of the disease but is an effective means of preventing complications. General antiepidemic measures are carried out, prophylactic inoculation and sero-immunization being of great importance for prevention of scarlet fever. The children who have been exposed to the disease must be given immunoglobulin.

14. Answer the following questions using the text "Scarlet Fever":

- 1. When is the incidence of scarlet fever the highest?
- 2. Why is the incidence of scarlet fever low during the first five years of life?
- 3. How is scarlet fever disseminated?
- 4. What is the causative agent of scarlet fever?
- 5. What is the incubation period of scarlet fever characterized by?
- 6. What is the onset of scarlet fever accompanied by?
- 7. What does the physical examination of the child ill with scarlet fever show?
- 8. What is the period of eruption characterized by?
- 9. What does blood test reveal?
- 10. When does the period of desquamation usually start?
- 11. What complications may follow scarlet fever?
- 12. What is the usual treatment for scarlet fever?
- 13. What preventive measures are usually carried out?

15. Read and translate the text. Report on the topic "The Discovery of Vaccination".

Edward Jenner

Edward Jenner (1749-1823) was an English physician, the discoverer of vaccination. Jenner studied medicine in London, at St. George's Hospital. He began practice in Berkeley when he was 24 years old.

In the 18th century the whole world feared smallpox. One out of every five persons in London carried the marks of the disease on his face. It was the same in other countries of Europe. But these were the people who recovered from the disease. In those days smallpox was one of the chief causes of death.

Once Edward Jenner heard a milkmaid said: "I can't catch smallpox, I've had cowpox". So Jenner made a thorough study of all dairy diseases and found quite a lot of them. He believed that only one kind could be preventive against smallpox. On May 14, 1796, Edward Jenner accomplished one of the most important tasks in the history of medicine. He vaccinated little Jimmy Phipps, the eight-year-old son of his neighbour, with matter from cowpox vesicles squeezed from the hands of a milkmaid. Several weeks later Jenner infected the boy with smallpox matter. Time passed, and the boy remained absolutely free from the disease. During the next two years, Jenner repeated his experiment 23 times and felt certain enough of the truth of his discovery to publish his results. In 1798, he published an account calling his new method "vaccination" from the Latin word "vacca" meaning "a cow".

The news of the wonderful discovery spread abroad. People rushed to their doctors to be vaccinated. Very soon there was no part of the world that had not taken up vaccination. France, Germany, Spain and Austria were the first. In America, Egypt, China the operation was done on thousands of people, and terrible smallpox began to disappear as if by magic.

Edward Jenner died at Berkely in 1823, aged 74. We ought to remember that Jenner brought into common use the doctrine of preventive medicine.

16. Read and translate the dialogue:

Doctor: Good morning. What troubles you?

Woman with her 11 year-old son: Good morning, doctor. My son does not feel well.

Doctor: How old is he?

Woman: He is eleven.

Doctor: How long have the things been in a bad way?

Woman: He has been ill for a week or so, since we returned from a tourist trip. His head is aching nearly all day long and night. (*addressing to a boy*) So you have trouble with your night sleep, haven't you?

Boy: I didn't get a wink of sleep last night, doctor.

Doctor: Have you appetite for food? Do you enjoy your meals?

Boy: Not at all. I feel aversion for food.

Doctor: Do you have any trouble with your bowels?

Boy: I usually had a bowel movement every day, but these two days there has been something wrong with my belly. You see, I had no bowel movement for two days: yesterday and before yesterday but today I've had twice loose movements.

Doctor: Have you nauseated? **Boy:** No, never.

Doctor: Let me feel your pulse... But you are shivering... You have chills! (*to the nurse*) Nurse, take the boy's temperature, please... (*to the mother*) His temperature is very high. He'll be hospitalized at once. Your boy must be kept of the complete bed rest. I'm afraid it's enteric and may be infectious...

17. Complete the dialogue.

Doctor:

Woman with her 5 year-old daughter: Good afternoon, doctor. Doctor: ...

Doctor: ...

Woman: I have been away on vocation with my daughter for a month. **Doctor:**

Doctor: ...

Woman: Latin America.

Doctor: ...

Woman: She has got stomach pains, heartburn, nausea and diarrhea. She is also feverish.

Doctor: ...

Girl: My abdomen hurts all over when you touch it.

Doctor: ...

Woman: Where can she have these tests made?

Doctor: ...

18. Translate the following sentences into English:

1. До открытия вакцинации инфекционные болезни были одной из основных причин смерти людей. 2. Инфекционные (заразные) заболевания вызываются микробами, причем инфекция передается от больного к здоровому. 3. Дженнер показал, что инфекционные болезни можно предотвратить с помощью прививок. 4. Инфекционные заболевания матери во время беременности оказывают вредное влияние на плод. 5. Эта инфекция распространяется очень быстро. 6. В больнице может находиться несколько больных, которые заражены этим вирусом. 7. В некоторых случаях возбудители многих инфекционных заболеваний могут проникать через плаценту и вызывать заражение плода. 8. У новорожденных отмечается слабая сопротивляемость к различным инфекциям, так как организм не вырабатывает антитела, способные противостоять инфекции, и поэтому инфекционные заболевания у новорожденных имеют тяжелое течение. 9. Это может быть начальной стадией инфекционного заболевания. 10. Профилактика заболеваний лучше, чем лечение.

19. Read the text. Answer the question "What are common bacterial illnesses in the newborn?"

Bacterial Infections

Bacterial illnesses commonly encountered in the newborn include sepsis, meningitis, pneumonia, cutaneous infection, conjunctivitis, urinary tract infection (UTI), and, less commonly, arthritis and osteomyelitis.

Signs and symptoms. Sepsis simulates many noninfectious conditions. Temperature instability with hypothermia or hyperthermia may be present. Additional signs may include poor sucking, vomiting, diarrhea, abdominal distention, apnea, respiratory distress, cyanosis, hepatosplenomegaly, jaundice, skin mottling, lethargy, hypotonia, and seizures. Bulging fontanel and nuchal rigidity are not reliable signs of meningitis in newborn.

Management. Obtain cultures and begin treatment with combination of ampicillin and aminoglycoside. Duration of treatment: sepsis without local involvement – 5 to 10 days; meningitis – 14 days after sterile CSF (cerebrospinal fluid) cultures are noted; pneumonia – 7 to 14 days for Group B streptococcus and usual enterics; UTI – usually 10 to 14 days.

20. Read the text. Describe the course of a disease.

Acute Osteomyelitis

Osteomyelitis is an infectious suppurative disease affecting bones. It is caused by Staphylococcus, which reaches the bone via the blood stream from a distant focus, often a throat.

The disease generally affects the upper end of tibia or lower end of femur. The infection is followed by intense reaction, with pus formation in the marrow spaces. From there the suppuration spreads along the marrow cavity and also through the cortex, to erupt on the surface and form a subperiosteal abscess. In some cases the marrow cavity is widely involved; in others, on the contrary, there is a large subperiosteal abscess, but little or no pus within the bone. Almost always part of bone becomes necrotic.

Acute osteomyelitis generally affects children, especially if in poor health, after an infectious fever. In typical case the onset is sudden. Then pain and inflammation of the bone are accompanied by marked toxemia. The temperature rises, often to 103° or 104° F, the face is flushed and the tongue is furred. The leucocyte count rises to 20.000 or more. Delirium is frequent. The pain is severe. The limb is held immobile. The skin over the inflamed region is hot and red. Slight superficial edema appears early.

Acute osteomyelitis is a dangerous disease, especially when it affects a deep-seated bone, such as the upper end of the femur, pelvis or vertebrae. In those who survive the acute phase the disease often persists as chronic osteomyelitis. Eventually complete restoration of functions and general health will be expected in most cases, when appropriate treatment is applied.

21. Read the text and answer the question "What are the ways of detection of prenatal infections?"

Infections of Maternal Origin

Agents transmissible from the mother to the fetus and neonate include more than the traditional TORCH agent (toxoplasmosis, other infections, rubella, cytomegalovirus, and herpes simplex). Some prenatal infections result in hepatosplenomegaly, jaundice, purpura, CNS (central nervous system) signs and intrauterine growth retardation. However, many newborns experiencing prenatal infection are asymptomatic. Detection and isolation of infectious agent is by means of electron microscopy, immunofluorescence, cytologic findings. Elevation of IgM-specific antibody to greater than 20 mg/dl in cord or neonatal blood is suggestive, but it is occasionally normal in infants with intrauterine infection. IgA should also be measured to assure that the cord blood sample is not contaminated with maternal blood.

22. Read the text and give abstract of it.

Congenital Rubella

Congenital rubella is a severe clinical syndrome characterized by developmental defects of various organs resulting from intrauterine virus persistence. Gress (1942) was the first to describe in detail the various consequences of intrauterine infection of the fetus with the rubella virus. He noted the development of cataract, deafness, loss of weight and high mortality rate of newborns. Studies of congenital rubella began to be conducted particularly intensively in the mid sixties after several outbreaks of rubella and increase of the incidence of congenital and developmental anomalies. Rubella belongs to the group of toga-viruses. The virus is sensitive to ultraviolet rays, acetone, ether, formalin, and alcohol. The most typical clinical symptom of congenital rubella is unilateral and bilateral cataract. The next symptom of congenital rubella is a heart defect. And the third symptom is deafness. Deafness is the most frequent developmental anomaly in congenital rubella and is characterized by impaired hearing of various degrees. Quite often deafness is combined with disorders of the vestibular apparatus and may be unilateral or bilateral.

23. Read the text and point out the difference between Hepatitis A and Hepatitis B.

Hepatitis

Neonatal hepatitis may have multiple infectious causes.

Hepatitis A (HAV). Transmission of HAV to the neonate is possible if the mother is in the incubation period or is acutely symptomatic at the time of delivery or by transfusion of infected blood. In the neonate, the virus is detectable in the stool for several weeks without obvious clinical illness. This poses a hazard to susceptible care takers. HAV infection is established by detecting antigen in the stool or by findings anti-HAV-IgM antibody in serum specimens.

Enteric precautions are recommended for duration of hospitalization. In the infant born to an acutely symptomatic mother, human immune serum globulin should be considered although its effectiveness is unknown. The occurrence of HAV infection earlier in pregnancy is not an indication for withholding breast feeding or administration of immune serum globulin.

Hepatitis B (HBV). Incidence varies with ethnic origin of mother, the timing and type of maternal infection, whether or not mother is HBsAg and "e" positive. Transplacental transmission is rare. Transmission to an infant by HBsAg-positive mother occurs during or shortly after delivery. HBIG and Hep-tavax are used to protect the infant from acute infection and development of chronic infection.

A mother with acute (symptomatic) hepatitis late in pregnancy or shortly after delivery is much more likely to transmit infection to her infant than a mother with acute infection early in pregnancy or the mother who is a chronic carrier. The infected infant of a chronic carrier is more likely to develop severe chronic liver disease. Chronic liver disease is more common in Asians. 24. Read the text and answer the questions below it.

HIV

Human immunodeficiency virus (HIV) causes acquired immunodeficiency syndrome (AIDS). Vertical transmission from mother to infant accounts for the majority of HIV infected infants in the world. It may also be transmitted by transfusion of blood and blood products.

Pathogenesis:

- HIV + mother secondary to drug abuse, sexual contact with HIV + male;
- transmission by way of blood products (now reduced with efficient screening);
- unclear whether infections occur primarily by inoculation at time of birth.

Infected infants are often asymptomatic at time of birth. Recurrent infections, severe intractable diarrhea and failure to thrive are common clinical manifestations which may present shortly after birth.

Serology cannot be relied upon at birth. Polymerase chain reaction detection of HIV antigen in infant's lymphocytes is strongly indicative of "true" infection in infant.

Management: good nutritional support; pneumocystis carinii prophylaxis; IV gamma globulin for antibody deficiency; antiviral prescription – AZT, DDI, others; anti-infective agents for treatment of infection.

- Questions:
- 1. What is HIV?
- 2. How can it be transmitted?
- 3. What is clinical course of HIV in infants?
- 4. What does treatment of this disease consist of?

25. Read the text and give abstract of it.

Immunization

Immunization is recognized by the medical professionals, health authorities, and the government in Britain as one of the major preventive measures in the achievement of child health. Currently, approximate acceptance rates for immunization are 85% for poliomyelitis, diphtheria, and tetanus, 80% for rubella, 60% for measles, and 55% for whooping cough.

The low figure for measles is probably related to public apathy about the significance of this disease which in Britain, in contrast with many of the

developing countries, is relatively mild. Another factor is health authorities' lack of vigour in promoting measles immunization.

With whooping cough immunization the position is different. Reports in the early 1970s that whooping cough vaccine might cause permanent brain damage were taken up by the media and presented virtually as established fact. This resulted in a dramatic drop in the uptake of whooping cough vaccine to as little as 16% following earlier uptakes of more than 80%. Very soon the effect of this became evident with a recrudescence of whooping cough in epidemic form, each epidemic being associated with a significant mortality and morbidity. The medical professionals and the public began to realize that the risk of whooping cough far outweighed any possible risk from immunization. Uptake has now risen again to more than 60%.

The most recent evidence suggests that whooping cough vaccine has little if anything to do with the development of permanent brain damage. Brain damage is common in childhood for a wide variety of reasons. Immunization was often carried out in children who already were, or were destined to become, brain damaged for reasons which had nothing to do with immunization.

28. Revision questions:

- 1. What are characteristic symptoms of sepsis?
- 2. What does treatment of sepsis consist of?
- 3. What is duration of sepsis treatment?
- 4. What kind of disease is osteomyelitis?
- 5. What infections of maternal origin do you know?
- 6. Who was the first to describe the various consequences of intrauterine infection of the fetus with the rubella virus?
- 7. Whom is chronic liver disease more common in?
- 8. What is the difference between HIV and AIDS?
- 9. Is immunization in infants and children important? Why?

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