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Кафедра иностранных языков

Н. А. ШВЕЦ

**ХИРУРГИЯ И ОКАЗАНИЕ ПЕРВОЙ
МЕДИЦИНСКОЙ ПОМОЩИ**

**Учебно-методическое пособие
по английскому языку
для студентов 1–2 курсов лечебного
и медико-диагностического факультетов**

SURGERY AND GIVING FIRST AID

**Teaching workbook
in English for the 1st–2nd year students
of the Faculty of General Medicine and Diagnostics**

**Гомель
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Рецензенты:

кандидат педагогических наук, заведующая кафедрой английского языка
Гомельского государственного университета имени Франциска Скорины

С. И. Сокорева;

старший преподаватель кафедры иностранных языков
Гомельского государственного медицинского университета

А. А. Шиханцова;

кандидат медицинских наук, ассистент кафедры хирургических болезней № 2
Гомельского государственного медицинского университета

В. И. Батюк

Швец, Н. А.

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Цель учебно-методического пособия — научить студентов медицинских вузов извлекать нужную информацию из текстов по специальности, составлять диалоги по предложенным моделям и вести беседу по специальности в пределах изучаемой лексики.

Состоит из 4-х основных разделов, соответствующих основным требованиям учебной программы. Каждый раздел состоит из текста, охватывающего основные проблемы по данной тематике.

Предназначено для студентов-медиков 1–2 курсов, продолжающих изучение предмета в вузе.

Утверждено и рекомендовано к изданию Центральным учебным научно-методическим советом учреждения образования «Гомельский государственный медицинский университет» 15 декабря 2010 г., протокол № 12.

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ВВЕДЕНИЕ

Учебно-методическое пособие состоит из текстов, диалогов и ситуативных композиций, представленных в книгах: D. V. James «Medicine», E. G. Bzhosko «Brush up your Medical English», A. M. Maslova «English for Medical Students». Тексты отобраны из новейших английских медицинских сборников, журналов и других источников, а также представлен терминологический минимум, необходимый для понимания медицинских текстов и диалогов на английском языке. Такой подход помогает выработке творческих навыков работы над текстом: научить составлять краткую аннотацию или резюме по теме; уметь выделить из текста предложения и целые отрывки, передающие основную идею текста; уметь озаглавить целые абзацы; научить высказывать свое мнение по различным медицинским проблемам на английском языке.

В учебно-методическое пособие включены медицинские термины, предназначенные для активного усвоения студентами, ряд упражнений на перевод с русского языка на английский и с английского на русский для контроля усвоения студентами лексического материала, а также упражнения, согласно которым должна строиться устная беседа по предложенным темам.

Включенные во 2-й раздел текст и диалог озвучены носителями языка и помогают повысить фонетический уровень. 3-й раздел пособия рассчитан на развитие навыков письменного перевода со словарем.

UNIT I

SURGERY

Topic Vocabulary

1. abdominal	[æb' dɔminəl]	брюшной
2. anaesthesia	[,ænis' θi:zjə]	анастезия, обезболивание
3. to give anaesthesia		давать наркоз
4. aseptic	[æ'septik]	стерильный, асептический
5. availability	[ə'veilə'biliti]	наличие, ассортимент
6. to bare	[bɛə]	оголить
7. to brook	[bruk]	терпеть
8. clamp	[klæmp]	зажим
9. to close the wound in layers		закрыть рану послойно
10. to contribute	[k ən'tribju:t]	способствовать, содействовать
11. deficiency	[di'fiʃənsi]	недостаток, нехватка
12. deformity	[di'fɔ:miti]	дефект, изменение формы
13. delay	[di'lei]	промедление
14. disfigurement	[dis'figəment]	выраженный порок развития, физический недостаток
15. drainage	['dreiniɔ]	дренаж, осушение
16. dressing	['dresɪŋ]	повязка
17. efficient	[i'fiʃiənt]	эффективный, умелый
18. to exclude	[iks'klu:d]	исключать, не допускать возможности
19. exclusion	[iks'klu:ʒn]	исключение
20. emergency surgery	[i'mə:dʒənsi]	экстренная неотложная операция
21. facilities (pl.)	[fə'silitiz]	оборудование
22. to fall asleep	['fɔ:l ə'sli:p]	заснуть
23. to fasten	['fa:sn]	прикреплять, привязывать
24. gauze drain	['gɔ:z dreɪn]	марлевый тампон
25. to get out of bed	[get 'aʊt]	поднять с постели
26. hand in hand with	[hænd]	рука об руку
27. inaccessible	[,inæk'sesəbl]	недоступный
28. incision	[in'siʒn]	разрез, рассечение
29. to improve	[im'pru:v]	усовершенствовать, улучшить
30. improvement	[im'pru:vment]	улучшение, усовершенствование
31. infusion	[in'fju:ʒn]	вливание
32. intravenous	[intrə'vi:nəs]	внутривенный
33. iodine	['aiɔdin]	йод
34. judgment	['dʒʌdʒment]	суждение
35. to lance a boil	['la:ns]	вскрыть нарыв
36. malfunction	[,mæl'fʌŋkʃn]	дисфункция
37. minor surgery	['mainə]	«малая» операция
38. neurosurgery	[,nju:ɔ 'sə: dʒəri]	нейрохирургия

39. noble	['nobl]	благородный
40. obstruction	[,ɒbst'rʌkʃn]	непроходимость, закупорка
41. operating theatre	[ɔpe'reitiŋ 'θiətə]	операционная
42. orthopaedic	[,ɔ:θə'pi:dik]	ортопедический
43. to paint	[peint]	смазывать
44. plastic surgery	[plæstik]	пластическая, реконструктивная хирургия
45. postoperative	[poust' ɔperativ]	послеоперационный
46. to postpone	[poust'poun]	откладывать
47. preoperative	[pri' ɔperativ]	дооперационный
48. priceless	['praɪsləs]	бесценный
49. required surgery	[ri'kwaiəd]	хирургия по показаниям
50. resuscitation ward	[ri,sʌsi'teɪʃn wɔ:d]	реанимационная палата
51. safe	[seɪf]	безопасный
52. to be semiconscious	[semi'kɒnʃəs]	быть в полусознательном состоянии
53. scrub up room	[skrʌb 'ʌp]	предоперационная
54. sponge	['spʌndʒ]	губка
55. sterile	['sterail]	стерильный
56. surgeon	['sə: dʒən]	хирург
57. surgery	['sə: dʒəri]	хирургия
58. surgical	['sə: dʒɪkl]	хирургический
59. thyroid	[' θaɪrɔɪd]	щитовидная железа
60. tonsillectomy	[tɒnzi'lektɔmi]	удаление миндалин
61. urgent surgery	['ə:dʒənt]	безотлагательная, срочная операция
62. well equipped	['i'kwɪpt]	хорошо оснащенный
63. workshop	['wə:kʃɔp]	мастерская

I. Train the pronunciation of the following words

Surgery, surgeon, sterile, germ, thyroid, workshop, resuscitation ward, operating theatre, tonsillectomy, semiconscious, sponge, availability, improvement, to give anaesthesia, to contribute, disfigurement, to lance a boil, emergency surgery, deficiency, to fall asleep, priceless, orthopaedic, to exclude, malfunction, inaccessible, plastic surgery, delay.

II. Give Russian for the following word combinations from the text

To go hand in hand (with); to fail to survive the operation; to make sure; minor surgery; to stay overnight in the hospital; despite the fact that; hospital facilities; postoperative care of the patient; scrubbing up; to make smth. safe; to overcome smth. (difficulties, loss); to control pain; to make every effort; to get smb. out of bed; as soon as possible; to be concerned with; to brook no delay with; a second independent opinion.

III. Make the sentences below more emphatic using the constructions

I am sure

I don't believe

Everybody knows

One can say

1. Surgery is one of the best specialities in medical practice.
2. A patient is allowed to walk a few days after a cardiac operation.
3. A good surgeon is far more than a pair of trained hands.
4. Modern surgery is safe and efficient.
5. Minor surgery is performed in a doctor's office.

IV. Find best corresponding words for the combinations in the right column

- | | |
|-----------------------|---|
| 1) postoperative care | a) reconstruction of tissues, to relieve deformities |
| 2) surgery | b) sedative drugs, antibiotics, pain killers, to control pain |
| 3) minor surgery | c) to sterilize, antibiotics, to exclude infection |
| 4) preoperative care | d) intravenous infusions, sterile instruments |
| 5) blood transfusion | e) vitamins, minerals, to prevent infection |
| 6) plastic surgery | f) office surgery, lancing a boil |
| 7) aseptic | g) semiconscious state, narcosis, controlling pain |
| 8) anaesthesia | h) to operate, operating room |

V. Say which combination describes

- a) urgent surgery;
- b) achievements in modern surgery;
- c) aseptic conditions.

1. Improved training of surgeons; availability of new drugs; improvement of anesthetics; careful postoperative care.

2. Exclusion of every source of infection; sterile instruments, towels; sponges, antibiotics.

3. Acute bowel obstruction; fractured skull, acute kidney stone disease.

VI. Read the texts and answer the questions

- a) What historical facts are mentioned in it?
- b) What statistic data are given there?
- c) What drugs are discussed?
- d) What branches of surgery are listed?

VII. Remember the following combinations before reading the text

- | | |
|-------------------------------------|--------------------------------|
| 1) to be a far cry from | далеко уйти (от) |
| 2) to get rid of | избавиться от |
| 3) to be available | быть доступным |
| 4) to make sure | удостовериться, быть уверенным |
| 5) free standing clinics | дневные стационары |
| 6) to fail to survive the operation | не перенести операцию |
| 7) residency | ординатура |
| 8) confidence | уверенность |

TEXT 1

SURGERY

Surgery means the performance of a surgical operation, or, sometimes, the room where it is performed.

Modern surgery is safe and efficient. The development of surgery has gone hand in hand with improvements in hospital facilities. A hospital is truly the surgeon's workshop. In the operating room of a modern hospital the skills and facilities are available to make sure that the best and safest treatment can be given.

Minor surgery is also sometimes performed in a doctor's office, and more serious surgery in so-called «free-standing» clinics. The patient comes in during the day. A few hours after his operation, he is permitted to leave. He does not stay overnight in the clinic — which is not a hospital.

Why is surgery so safe today? Many factors contribute to this pleasant fact. They include the improved training of surgeons; the availability of new drugs that control infection and produce other important physiological effects; improvements in anaesthesia; careful preoperative and postoperative care of the patient; and better hospitals.

Modern surgery is performed under the best possible aseptic conditions, which means exclusion of every possible source of infection. This fact accounts for much of the ritual of operating room — masks, gowns, «scrubbing up», sterile instruments, sponges, towels, and the like.

Surgery is one of the best defined specialties in medical practice and the surgeon must undergo rigorous training and apprenticeship before he can play his art in an accredited hospital. A good surgeon is far more than a pair of trained hands. He also has the priceless intellectual quality of «surgical judgement.» which tells him when and how to operate.

TEXT 2

TYPES OF SURGERY

There is practically no site in the human body which today is inaccessible to surgical operation. Along with this has come an increasing definition of surgical specialists, so that most surgeons tend to confine themselves to operations on one region or system of the body.

Types of surgery can be described by the region of the body they deal with, in either simple or technical terms. Thus we have such terms as chest (thoracic), heart (cardiac), ear (aural), eye (ophthalmic), bladder and kidney (genitourinary) surgery.

More comprehensive terms are:

A «general surgeon» is one who tackles all kinds of surgical cases.

Abdominal surgery, treats all the organs inside the abdomen.

Orthopedic surgery, is concerned with the diseases of the bones, joints and muscles.

Neurosurgery, deals with surgery on the brain and the nerves distributed along the spinal cord.

Plastic surgery, deals with is the reconstruction of facial and other skin, soft tissues, and sometimes their transplantation from one part of the body to another. Plastic surgery is used to relieve disfigurements, deformities and malfunctions. This speciality developed after World War I and is sometimes inadequately described as «cosmetic surgery».

TEXT 3

SURGERY AND CLASSIFICATION OF ITS URGENCY

Surgery can also be classified by its urgency. Emergency surgery, demanded, for example, in such conditions as a fractured skull or acute bowel obstruction, brooks no delay in getting the patient to the hospital and into the operating theatre. Urgent surgery, as demanded by cancer or kidney stones, may be put off for a few days. Required surgery, such as tonsillectomies and thyroid operations, may be postponed for a few weeks or months. There are also categories of elective surgery, such as removal of simple hemorrhoids, in which operation is strongly indicated, but not imperative. There is also optional surgery, like «nose lifting» which the patient may choose not to have done at all.

«Office surgery» or minor surgery, such as lancing a boil, can be performed by the doctor without sending the patient to a hospital.

Except in emergency, the decision to undergo an operation or not is usually made by the patient. The surgeon can only advise and counsel. The patient must have confidence in his advice. Sometimes a patient will want to have a second independent surgical opinion, and there must be no objection to such a consultation.

TEXT 4

PREOPERATIVE AND POSTOPERATIVE CARE

Preoperative deficiencies in proteins, vitamins, minerals and sugars can be corrected by intravenous infusions. If necessary, blood transfusions can be given before operations, although it is more common to give them after operation to overcome blood loss and to combat shock.

Other preoperative medication usually includes sedative drugs, given to the patient, so he comes into the operating theatre in a relaxed, semiconscious state. Special drugs are given to control pain after the operation. Addiction does not occur, because strong-effective drugs are given only for a few days to recuperate from a surgical operation.

Antibiotics to control and prevent infection are prescribed both before and after operation. Surgeons now make every effort to get their patients out of bed as soon as possible after operation.

VIII. Find in the text equivalents for the following

Безопасная и эффективная; рука об руку; самое лучшее и безопасное лечение; оставаться на ночь; несмотря на тот факт, что; вносить вклад (способствовать); этот факт объясняет; не терпит отлагательств; получить совет; поднимать больного с постели; быть доступным; перенести операцию; уход за больным.

IX. Answer the following questions

1. What does the word «surgery» mean?
2. How did surgery develop?
3. What is the statistics of the death-rate during the operations?
4. Why did surgery become safe today?
5. How long does it take to become a surgeon?
6. What did you learn about preoperative and postoperative treatment?
7. What types of surgery do you know?
8. What is a «general surgeon»?

X. Discussion of the text

1. Say how you understand «a free-standing» clinic; «office surgery».
2. What does the author mean saying:
 - a) a good surgeon is far more than a pair of trained hands;
 - b) the decision to undergo operation lies with the patient.
3. Explain why surgery is considered safe today.
4. Look through the texts again and speak on:
 - a) preoperative and postoperative care;
 - b) types of surgery depending on the part of the body which is involved;
 - c) types of surgery depending on its urgency.

XI. The text below is a composition of a young doctor. He is a surgeon and works at a large hospital. Read the text and say what you have learnt about

1. The hospital he works at.
2. The working day at the hospital.
3. The ritual of the operating room (aseptic conditions).

The Working Day of a Surgeon

I'm working as a surgeon at one of the largest hospitals of our city. Our hospital is a modern nine-storied building which was constructed in 2006. More than 1250 patients are taken care of at its different departments. There are such surgical departments as the department of urgent surgery, the department of liver, bile ducts and pancreas surgery, the department of neurosurgery, a large department of facial plastic surgery, the department of suppurative surgery. There are also some diagnostic departments: laboratory investigations department, X-ray department, the department of the radiological methods of examinations.

The working day at the hospital begins at 8.30. It is the time when all the surgeons get together in the conference-hall for a short morning conference. The doctor on duty informs the staff about the new admissions (patients), about the urgent operations, which were performed and about the condition of the bedridden patients. We discuss the most difficult cases, listen to the new achievements in surgery.

At nine o'clock the doctors begin their daily round. They examine the patients, prescribe different medicines to them, direct them to necessary tests and examinations.

At 10 o'clock the surgical department of the hospital, which includes 14 operating theatres starts its work. There is an unbreakable rule: all the materials, linen, solutions and instruments that come into contact with the patient's wound must be made sterile; of immense value are single-use (disposable) surgical sets and instruments.

The surgeon as well as every assistant after putting on a clean white coat, trousers and a cap, cover the face, the mouth and the nose with a sterile mask. This is «a must» for everyone of the staff, in order to protect the patient from carriers of virulent microbes.

The care for surgeon's hands is most important. The nails must be trimmed and the skin kept soft. No surgeon with an infection of the fingers or the hands should operate.

The fingers, hands and forearms up to the elbows are then scrubbed under the hot running water with soap and brush during 5 to 10 minutes. The hands are then raised and the water is allowed to drip off the elbows, the hands are dried on a sterile towel, sponged with alcohol, the nails are painted with iodine. Only now the sterile gown and rubber gloves are put on.

This time the patient is being prepared for the operation too. It includes the following: premedication, shaving the operative field, stomach lavage, enema and other procedures depending on the case.

Most of the operations are performed under general anaesthesia. When the patient falls asleep, the surgeon paints the operative field with iodine and alcohol, covers the patient with sterile sheets, fastens them to the patient's skin with the towel clips, leaving bare only the place for the incision. The surgeon makes the incision with the scalpel. Bleeding is stopped with the clamps. The surgeon examines the injured organs and performs the necessary manipulations. Then the wound is closed in layers with or without drain. The bandage is stuck on the wound. The operation is over. It's very difficult to become a surgeon, but it's more difficult to be a good surgeon.

XII. Agree or disagree to the following. Use

Right you are ...; it's correct ...; certainly ...; I'm afraid you are not right ...; I'm sorry but

Prove your opinion with a sentence or two:

1. The working day at the hospital begins at 10 a. m.
2. The doctor on duty never informs the staff about the past events.
3. The care for surgeon's hands is most important.
4. Premedication is started five minutes before the operation.
5. Only a few operations are performed under general anaesthesia.
6. It's not difficult to be a good surgeon.

XIII. Communication practice. Use the questions given below and dramatize the situations: a) first visit to the surgeon; b) a case of appendicitis; c) a case of intestinal bleeding; d) tonsillectomy; e) postoperative consultation of the surgeon.

a) First visit to the surgeon

1. What kind of trouble do you have?
2. How long have you been ill?
3. Where do you have pain?
4. Was the onset of the pain sudden or slow?
5. Is the pain sharp or dull now?
6. Did you take any drugs to relieve the pain?
7. Have you ever had a serious operation?
8. Was your appendix removed? When was it removed?
9. Have you ever had a serious injury?
10. Have you ever been vaccinated against (for) tetanus (the question is asked in case of a trauma or injury).

b) A case of appendicitis

1. What is your complaint? Where does it hurt you?
2. When did the first symptoms appear?
3. What diseases did you have in the past?
4. Did you suffer vomiting?
5. How long have you had this pain?
6. Does the pain have any radiation?
7. Do you have any troubles with your stomach?
8. Do you have pain in the back (the lumbar region)?
9. Have you ever had any treatment for your kidneys?
10. Are you running a high temperature?

c) A case of intestinal bleeding

1. Do you have any pain in your stomach or intestine?
2. Have you ever had a black bowel movement?
3. When did you notice black stool?
4. What colour is the stool?
5. Do you have vomiting?
6. Have you ever thrown up blood?
7. Has a doctor ever said that you had stomach ulcers?

8. Does it hurt you here?
9. Where does the pain irradiate?

d) Referral to tonsillectomy

1. How often do you have a sore throat?
2. How often do you have acute tonsillitis?
3. Did you have paratonsillitis (abscess) before?
4. Do you suffer from a constantly running nose?
5. Do you notice shortness of breath on exertion? Do you feel general malaise?
6. Do you have deformities of joints?
7. Do you often have running temperature?

e) Post-operative consultation at the surgery

1. Do you have a good appetite?
2. How are you doing?
3. Do you have difficulty in evacuating gas?
4. Do you watch a diet?
5. Do you move your bowels every day?
6. Do you have a pain in the post-operative wound?
7. Do you have a high temperature?
8. Does the pain bother you at night?

XIV. Fill in the chart «Surgical Diseases». Speak on each point of your chart

Most typical diseases and disorders (traumas)	Chief complaints	Operations to be per-formed	Most typical (or possible) complications
I	II	III	IV

1.
2.
3.

Additional Topical vocabulary

- | | |
|---|---|
| 1) to perform / do / make / carry on an operation | выполнять операцию |
| 2) to operate on smb. for smth. | оперировать кого-либо по поводу чего-либо |
| 3) to be operated on (upon) for | оперироваться, быть прооперированным |
| 4) to cancel an operation | отменить операцию |
| 5) to postpone an operation | отложить операцию |
| 6) to undergo an operation (of a patient) | перенести операцию (о больном) |
| 7) operative access / approach | оперативный доступ |
| 8) to excize tissues | иссекать ткани |
| 9) dissection / section of tissue | рассечение тканей |
| 10) cut / section/incision | разрез |
| 11) suturing of tissues | соединение тканей |
| 12) surgical instrument | хирургический инструмент |
| 13) equipment of surgical block | оборудование хирургического блока |
| 14) apparatus, equipment | аппаратура |

15) clamp	зажим
16) to clamp (a vessel)	накладывать зажим
17) scalpel, lancet	нож, скальпель
18) syringe	шприц
19) disposable (one piece) syringe	шприц одноразового пользования
20) catheter	катетер
21) indwelling / permanent catheter	постоянный катетер

Additional topic material questions used by the doctors

1. How long have you been ill?	Давно вы болеете?
2. What is troubling you?	Что вас беспокоит?
3. In what part of the abdomen do you feel pain?	В каком месте болит живот?
4. Show the region where the pain is the worst.	Покажите место наибольшей болезненности?
5. How did the pain begin?	Расскажите, как началась боль.
6. Did you have such pains in the past?	Были ли раньше подобные боли?
7. How many hours (days) ago did the pain appear?	Сколько часов (дней) назад появилась боль?
8. Of what character are the pains? Are the pains constant or cramplike?	Каков характер боли — постоянная или схваткообразная?
9. At what intervals do the pains appear?	Через какие интервалы появляются боли?
10. Where do the pains shoot to? To the back, to the groin, to the thigh?	Куда распространяются боли: в поясницу, паховую область, бедро?
11. When did the pain in the groin appear?	Когда появилась боль в паховой области?
12. When did you first notice a swelling (tumour) in the groin?	Когда впервые появилась опухоль в паху?
13. Have you vomited?	Была ли рвота?
14. Do you feel any relief after vomiting?	Чувствуете ли облегчение после рвоты?
15. When did the last stools pass?	Когда был последний стул?
16. What kind of treatment (therapy) had you been given before admission to hospital?	Когда и какие лечебные меры принимались до поступления больницы?
17. When and what kind of operations did you undergo in the past?	Какие операции и когда перенесли в прошлом?
18. Have you been given an enema or any other therapeutic procedure at home?	Ставили ли вы клизму дома, пользовались другими средствами?
19. Did you have your stomach X-rayed and its contents studied by means of a (gastric) drainage?	Делали ли рентгеноскопию и зондирование желудка?
20. Did you have such attacks of pain in the past? When and what measures did you take?	Были ли подобные приступы болей в прошлом? Когда и какие меры принимались?

Directions to the surgical nurse

Check the knowledge of your fellow-student

1. Подготовьте больного к операции.	Prepare the patient for the operation.
2. Операция состоится завтра. Сегодня больной не должен есть. На ночь сделайте ему очистительную клизму и дайте успокоительное. Завтра утром он не должен принимать пищу (натошак).	The operation will take place tomorrow. Tonight the patient must not eat anything. Before bedtime give him a bowel lavage (enema) and give him a sedative. Tomorrow the patient must be on an empty stomach.

- | | |
|--|--|
| 3. За час до операции сбрейте волосы на лобке. | One hour before the operation shave his pubic hair. |
| 4. За полчаса до операции сделайте подкожный укол одного миллилитра морфина. | Half an hour before the operation give him a subcutaneous injection of 1 millilitre of morphin. |
| 5. Доставьте больного в операционную. | Have the patient transported to the operating theatre. |
| 6. Пристегните больного к столу. | Strap the patient to the table. |
| 7. Подготовьте все необходимые инструменты. | Have all the necessary instruments ready. |
| 8. Операция будет проводиться под местной анестезией. | The operation will be performed under local anaesthesia. |
| 9. Больной готов к операции? Он спит? | Is the patient ready for the operation? Is he asleep? |
| 10. Какой пульс? Наблюдайте за пульсом больного. | What is the pulse rate? Watch the patient's pulse. |
| 11. Сделайте больному инъекцию. | Give the patient an injection. |
| 12. Начинайте переливание крови (физраствора, глюкозы). | Begin the blood transfusion (physiological solution transfusion, glucose transfusion). |
| 13. Увеличьте дозировку кислорода. | Increase the oxygen dosage. |
| 14. Проверьте проходимость иглы. | Check the clearance of the needle. |
| 15. Подайте пинцет, скальпель, ножницы. | Give me the forceps, a scalpel, scissors. |
| 16. Подайте зажим для остановки кровотечения. | Give me a clamp to arrest the bleeding. |
| 17. Подайте зонд, иглодержатель, режущую и круглую иглу, шовный материал: шелк № 1, 2, 3 и т. д. и кетгут. | Give me a probe, a needle holder, a cutting and round needle, some suture material: silk № 1, 2, 3 etc. and some catgut. |
| 18. Подайте марлевый шарик, малую марлевую салфетку, салфетку большую, шприц и иглы. | Give me a gauze ball, a small gauze sheet, a big gauze sheet, a syringe and needles. |
| 19. Подержите крючки для раны. | Hold the hooks for the wound. |
| 20. Наложите жгут. | Apply the tourniquet. |
| 21. Помогите наложить гипсовую повязку. Где гипс? | Help me to apply (put on) a plaster cast. Where is the plaster? |
| 22. Вытрите мне лоб, пожалуйста. | Wipe my forehead, please. |
| 23. Включите кондиционер. | Switch on the air-conditioning. |

Instructions to the ward nurse

- | | |
|---|--|
| 1. Remain by the patient and watch his awakening. | Останьтесь около больного и наблюдайте за его пробуждением. |
| 2. Take away the pillow and roller so that the patient is in a horizontal position. | Уберите подушку и валик, чтобы больной находился в горизонтальном положении. |
| 3. Take the patient's temperature and arterial pressure every two hours. | Каждые два часа измеряйте больному температуру и артериальное давление. |
| 4. Introduce the antibiotic solution through the drainage once a day. | Раз в день вводите раствор антибиотиков через дренаж. |

UNIT II

LANGUAGE OF SURGERY

I. Practice the pronunciation

Area ['ɛəriə], alter ['ɔ:ltə], diagram ['daɪəgræm], epigastrium [əpi'gæstriəm], suprapubic [ˌsju:prə'pju:bɪk], cholecystitis [ˌkɒlɪsɪs'taɪtɪs], margin ['ma:dʒɪn], umbilical [ˌʌmbɪ'laɪəkl], Pfannenstiel ['pfanənʃti:l], Kohler ['kɔ:hə], jejunum [dʒi'dʒu:nəm], gastrojejunostomy [ˌgɑstrə'dʒɪdʒu:'nɒstəmi], flank ['flænk], pyloroplasty [ˌpaɪlɔrə'plæsti], loin ['loɪn], inguinal ['ɪŋɡwɪnəl], lateral ['lætərəl], grid-iron [ˌɡrɪd'aɪən].

II. Learn the following words

1. costal margin	[ˌkɒstəl 'ma:dʒɪn]	реберный край
2. rib cage	['rɪb keɪdʒ]	грудная клетка
3. bottom	['bɒtəm]	дно, днище
4. inguinal ligament	['ɪŋɡwɪnəl 'lɪɡəmənt]	паховая связка
5. lateral	['lætərəl]	боковой
6. umbilical	[ˌʌmbɪ'laɪəkl]	пупочный
7. flank	['flænk]	фланг, бок, сторона
8. above	[ə'bʌv]	над, выше
9. below	[bi'lou]	под, ниже
10. quadrant	['kwɔ:drənt]	квадрант
11. diagram	['daɪəgræm]	диаграмма
12. to represent	[ˌrepri'zent]	представлять, изображать
13. between	[bi'twi:n]	между
14. epigastrium	[əpi'gæstriəm]	надчребие
15. inferior	[ɪn'fɪəriə]	находящийся ниже
16. iliac fossa	['ɪljək 'fɒsə]	подвздошная ямка
17. suprapubic area	[ˌsju:prə'pju:bɪk]	надлобковая область
18. contents	['kɒntents]	содержание, содержимое
19. inflammation	[ɪnflə'meɪʃn]	воспаление
20. cholecystitis	[ˌkɒlɪsɪs'taɪtɪs]	холецистит
21. expect	[ɪks'pekt]	предполагать, ожидать
22. similarly	['simɪləli]	соответственно, похоже
23. appendectomy	[əˌpendɪ'sektəmi]	удаление аппендикса
24. to encounter	[ɪn'kaʊntə]	встречать, наталкиваться
25. onto	['ɒntu]	на, на поверхность
26. refashioning	[rɪ'fæʃnɪŋ]	изменение формы
27. pyloroplasty	[ˌpaɪlɔrə'plæsti]	операция на привратнике
28. to alter	['ɔ:ltə]	изменять, переделывать
29. pylorus	[ˌpaɪ'lɔrəs]	привратник желудка

30. outlet	['autlet]	выход
31. laparotomy	[,lapə'rɔ:təmi]	лапаротомия, чревосечение
32. totally	['təutəli]	абсолютно, полностью
33. anterior	[æn'tiəriə]	передняя (ий)
34. through	[θru:]	через, сквозь
35. particular	[pa:'tikjulə]	особый, определенный
36. to extract	[iks'trækt]	удалять, извлекать
37. oblique	[ɔb'li:k]	косой
38. midline	['midlain]	срединная линия
39. to by-pass	['baipa:s]	обходить, огигать
40. umbilicus	[,ʌmbi'laɪkəs]	пупок
41. paramedian	[,pærə'mi:djən]	срединный
42. loin	['loin]	поясница
43. renal	['ri:nəl]	почечный
44. common	['kɒmən]	часто встречающийся
45. area	['ɛəriə]	область
46. vertical	['və:tikəl]	вертикальный (ая)
47. jejunum	['dʒi'dʒu:nəm]	тощая кишка

III. Give English equivalents

Содержимое, язык хирургии, часто встречающиеся термины; изображать; линия; граница, край, это слово означает; переделать, изменить форму; изменение размера; буквально означает; удалить, даже если; назван в честь; как предполагает само название; особый разрез; особая операция; косой разрез; огигать, поясничный, вверху, внизу, ниже, реберный край; боковые края живота; подвздошная ямка; паховые связки; пупочная область; фланг, квадрант, надчревьё, надлобковая область.

IV. Match the antonyms

- | | |
|---------------|------------------|
| 1) upper | a) common |
| 2) above | b) superior |
| 3) inferior | c) at the bottom |
| 4) at the top | d) lower |
| 5) rare | e) below |

V. Match the synonyms

- | | |
|-----------------------|--------------------------|
| 1. margin | a) from the side |
| 2. a midline incision | b) particular |
| 3. remake | c) kidney |
| 4. cut out | d) for instance |
| 5. the exit | e) similarly |
| 6. special | f) remove |
| 7. renal | g) a laparotomy incision |
| 8. meet | h) refashion |
| 9. for example | i) edge |
| 10. in analogy | j) alter |
| 11. lateral | k) encounter |
| 12. change | l) outlet |

VI. Listen to the tape

Tapescript 1

Listen to the Lecture

You will now hear part of a lecture on the language of surgery.

Paragraph I

The subject of today's lecture is «The Language of Surgery» and in it we shall look at common descriptive terms used by surgeons. First of all look at the first diagram in your books. This shows how the abdomen is often represented in medical notes. The six sides represent the borders of the abdomen. The upper two are the costal margins, that is, the lower end of the rib cage. The vertical lines are the lateral edges of the abdomen, and the two lines forming a «V» shape at the bottom are the inguinal ligaments.

Paragraph II

The figure 1 shows the abdomen divided into eight areas. The central area is the umbilical region. Lateral to this are the right and left flanks. Above the right flank and below the right costal margin is the right upper quadrant. Note that the left side figure 1 of the diagram as you look at it on the paper represents the right side of the abdomen. Between the right and left upper quadrants lies the epigastrium. Inferior to or below the right and left flanks lie the right iliac fossa and the left iliac fossa. Between these lies the suprapubic area. All these areas are said to have contents; for example, in the right upper quadrant lie the liver and gall bladder. If a patient had an inflammation of the gall bladder, which is known as cholecystitis, you would expect to get pain in this area. Similarly, pain in the right iliac fossa could be caused by appendicitis, as the appendix is found in this region.

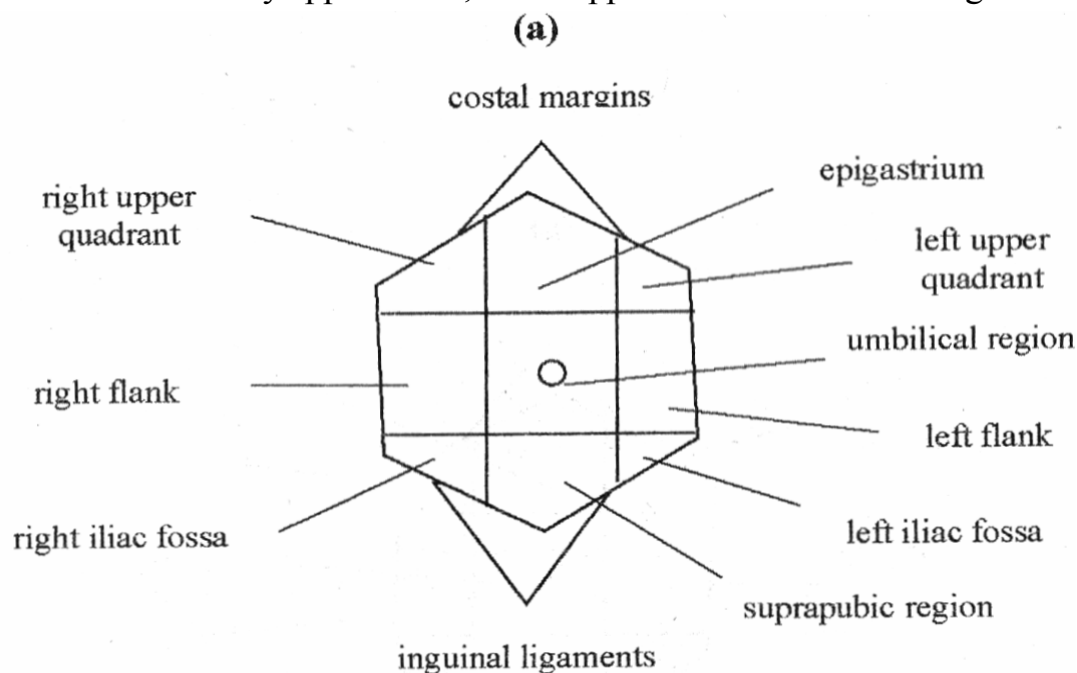


Figure 1 — The abdomen divided into light areas

Paragraph III

Now let's look at some of the more common terms you will encounter. Words ending in-ostomy, that's O-S-T-O-M-Y, mean «opening onto the skin.». For example, a colonostomy means that the colon is opened onto the skin. Similarly, a gastrojejunostomy is the result of making a communication between the stomach and a loop of jejunum. Another common ending is-plasty, that's P-L-A-S-T-Y. This means refashioning something to make it work. For example, pyloroplasty means surgically altering the size of the pylorus, which is the outlet of the stomach. The ending-ectomy, that's E-C-T-M-Y, means cutting something out. For instance, appendectomy literally means cutting out the appendix. The last ending that I'll mention today is-otomy, O-T-O-M-Y, which means cutting something open; laparotomy means cutting open the abdomen. If you remember what these ending mean, you will be able to understand words which contain them, even if the words are totally new to you.

Paragraph IV

Now look at the figure 2. This shows a number of lines which represent incisions. An incision is an opening cut in the skin — in this case in the anterior abdominal wall, through which an operation is performed. Particular incisions are used for particular operations. For example, the incision used for extracting the gall bladder (the operation of cholecystectomy) is an oblique incision below the right costal margin. It is called Kocher's incision after the surgeon who first described it. The midline or laparotomy incision lies in the midline, as its name suggests, although the cut by-passes the umbilicus. The Pfannenstiel incision is a horizontal line lying across the suprapubic region. The grid-iron used for appendectomies lies in the right iliac fossa. The right paramedian incision lies to the right of the midline. The loin incision is used in the renal, or kidney surgery and lies in the upper quadrant and flank regions. Nearly all abdominal operations will use one of these incisions that I've listed.

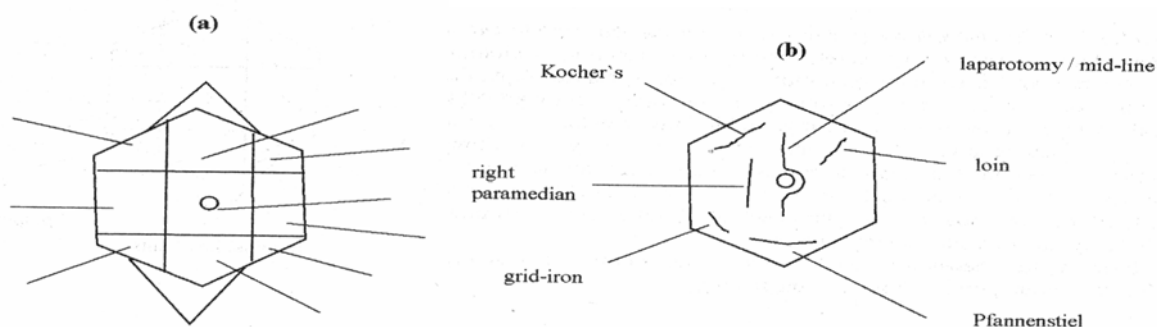


Figure 2 — The incisions

VII. Pay attention to the following prepositional phrases

- | | |
|-----------------|-------------------|
| 1. for instance | например |
| 2. to cut out | удалить, вырезать |
| 3. through | через |
| 4. although | хотя |

5. to use for	использовать для
6. opening onto the skin	вывод на кожу
7. to be called after	быть названным именем кого-либо
8. to by-pass	обходить, огибать
9. to lie across	лежать поперек
10. to the left of	налево от

VIII. Read and translate the text of the lecture

IX. Complete the sentences

1. Diagram (a) shows 2. The six sides of the diagram represent
 3. The upper sides are 4. The vertical lines are 5. The two lines at the bottom are 6. The abdomen is divided into 9 7. Above the right flank
 8. Each area has its 9. The left side of the diagram 10. If a patient had an inflammation 11. Pain in the right iliac fossa 12. The second diagram shows a number 13. Particular incisions are used 14. The incision used for extracting the gall bladder 15. The midline or laparotomy 16. The Pfannenstiel incision 17. The grid Iron used for 18. The loin incision is used 19. Nearly all abdominal operations

X. Try to translate the following words and word combinations without looking into the dictionary

Pyloroplasty; the inguinal ligaments, to be used in renal surgery; Pfannenstiel incision; costal margins; lies in the right iliac fossa; opening onto the skin; thorocotomy, the incision used for extracting the gall bladder; the two lines forming a «V» shape; the outlet of the stomach; pylorus; laparotomy, an incision through which an operation is performed; colonostomy, tonsillectomy, a horizontal line lying across the suprapubic region; Kocher's incision; an opening cut in the skin; refashioning something to make it work; the lower end of the rib cage; the loin incision, jejunostomy; the grid-iron incision; to by-pass.

XI. Complete the following sentences

1. Cholecystitis means ... ; it causes pain in
2. Appendicitis may cause pain in
3. Words ending in-*ostomy* mean ... , for example
4. Words ending in-*plasty* mean ... , for example
5. Words ending in-*ectomy* mean ... , for example
6. Words ending in-*otomy* mean ... , for example

XII. Agree or disagree with the statements

1. Diagram (a) shows how the body is often represented in medical notes.
2. The right and left flanks are lateral to the umbilical region.
3. Above the flanks are quadrants.
4. Below the flanks are iliac fossae (sing, fossa).

XIII. Answer the following questions

1. What are the six sides representing the abdomen?

2. What is the central area?
3. What is lateral to the central area?
4. What is above and below the flanks?
5. What is between the quadrants?
6. What is below the umbilical region?
7. Why do surgeons expect to get pain in this or that area?
8. What do words ending in-ostomy mean?
9. What does-plasty mean?
10. What can you tell us about such word endings as-ectomy and-otomy?
11. What does laparotomy (appendicectomy, colonostomy) mean?
12. Do you agree that: a) -ostomy means opening onto the skin; b) -otomy means cutting open; c) -ectomy means cutting smth.out?

XIV. What questions would you ask to receive the following information

1. It is an opening cut in the skin through which an operation is performed.
2. Yes, there are different incisions.
3. Six different incisions are used in abdominal operations.

XV. Speak on the following topics

1. Look at diagram (a). Tell us how the abdomen is represented in medical notes.
2. Give some examples and describe the meaning of such word endings as -ectomy, -otomy, -ostomy and-plasty, used in medical terminology.
3. Look at diagram (b) and name all the incisions, used in abdominal operations.

XVI. Listen to the dialogue and pay special attention to the pronunciation of medical terminology

Tapescript 2

Listen to the Dialogue

You will now hear a radio reporter interviewing a surgeon who is performing an appendicectomy.

Reporter: Today's edition of «Your life — in their hands» comes to you direct from the operating theatre at St. Stephen's Hospital, where we are about to witness the removal of an appendix. The patient is already anaesthetized on the operating table. The surgeon and assisting nurses are coming into the operating theatre, dressed in sterile green gowns with gloves, caps and face masks. I shall now approach the operating table where, under the glare of the lights, the surgeon is preparing to make his first incision. Mr. Cutter, perhaps you could guide our listeners.

Mr.Cutter: Certainly. As you see, the patient has been covered in sterile drapes, leaving exposed only the lower right quadrant of the abdomen. The skin has been cleaned with iodine, which accounts for the orange colour. I shall now take a scalpel and make a small incision about six centimeters long. This is known as a grid-iron incision and is made at a point two-thirds of the way from the umbilicus to the anterior superior iliac spine. Knife, please, nurse There,

one stroke of the knife takes us through the skin and the yellow fat layer. You can see the white of the muscle sheath glistening below. Diathermy, please, nurse.

Reporter: What's the diathermy, Mr. Cutter? Could you explain its function to us?

Mr. Cutter: It's a simple idea, really. It's a way of stopping bleeding from small blood vessels by burning with an electric current. I touch the metal probe to the bleeding point and press a pedal with my foot. There. You see? A short frying sound and an acrid smell of scorching flesh, and the bleeding stops.

Reporter: What's the next step?

Mr. Cutter: The nurse is stretching the edges of the incision apart with instruments known as retractors. I'm cutting through the muscle layers, stopping the bleeding points as I go. We've now arrived at a thick white sheath of connective tissue, known as fascia. We cut through that, and below is the peritoneum, which is the thin membrane that lines the inside of the abdominal cavity. I'll hold it with my forceps and make a small cut. There we are. We're into the abdominal cavity, and you can see the intestines sliding against one another as the patient's diaphragm moves with respiration. I'm now going to reach inside with my fingers and locate the caecum. Yes, I've got it. And behind it should be the appendix. Yes, there we are. I'll put it out through the incision. Non-crushing clamp, please, nurse.

Reporter: Mr. Cutter has now produced through the incision an angry, reddened structure about the size of a little finger. Is that an abnormal appendix, Mr. Cutter?

Mr. Cutter: Yes, indeed it is. It's markedly inflamed and certainly needs to come out.

Reporter: What's the procedure from now on?

Mr. Cutter: I'll tie off the blood vessels on the exterior of the appendix individually with lengths of silk. Then I'll tie the appendix itself off from the bowel and simply chop it off. I'll then invert the stump into the body of the bowel and close it with a purse-string stitch. Then I'll sew up each of the layers that we cut through, finishing with the skin.

Reporter: It seems a very straightforward operation, Mr. Cutter. It doesn't take long and, dare I say it, there's not too much blood. Are there ever any complications?

Mr. Cutter: It's a simple operation that even the most junior doctor can do under supervision. But, of course, difficulties can arise. Sometimes the appendix is difficult to find, and sometimes it's stuck down with inflammation. And this patient is quite thin. In a fat person, it's much more complicated, because you have to operate through a long tunnel of fat.

Reporter: Thank you, Mr. Cutter. And now, the surgeon closes his incision, that's the end of this week's programme and I'm returning you to the studio.

XVII. Give answers to the following questions

1. What precautions are taken to ensure sterility?
2. Could you list the layers that the surgeon cuts through?
3. Can you explain what «diathermy» is?
4. What is the size of an appendix?
5. What possible difficulties with this operation are mentioned?

UNIT III

THE GREAT RUSSIAN SURGEON PIROGOV

Many of the things which we take for granted in the medical services and especially in the treatment of patients in hospital today were unheard of a little over a hundred years ago and were introduced by the great Russian physician and surgeon N. I. Pirogov.

During his studies at Moscow University, where he graduated brilliantly at the early age of eighteen, and later at Dorpat, now Tartu, N. I. Pirogov, like other surgical students of his time, did not perform a single operation either on corpses or on living bodies. He was quick to realize that as a result of such a method surgeons knew very little about the structure of the human body. He became convinced that the study of anatomy was essential to members of his profession if they were to give correct diagnoses and to operate with precision and success. Lack of knowledge of the anatomy of the human body led to incorrect diagnoses and to unnecessary risks during operations. Surgeons worked blindly and committed a number of irreparable mistakes. A surgeon, on the other hand, who knew his anatomy well would be able to diagnose correctly and operate with speed and accuracy. Accordingly N. I. Pirogov decided to specialize in surgical anatomy. Later, when he was himself a professor, he gave his students frequent opportunities of surgical work, both on corpses and on patients in his surgery.

N. I. Pirogov very soon became known as one of the best surgeons of his time. His plastic operation in restoring a patient's nose by means of skin taken from the forehead brought him world renown. The osteo-plastic operation which he first evolved and practiced revolutionized the science of amputation and is known to this day as «N. I. Pirogov's operation».

Among his numerous patients were people abandoned as hopeless by other doctors or afflicted with incurable diseases. Never did he refuse to help them, no matter how busy he might be. He charged nothing for his operations. Although his fame grew day by day, it was not for renown or reward but to relieve human suffering that he continually worked to acquire greater knowledge and experience. Hence he never hesitated to admit his mistakes. This he did both in his writings and in his lectures, going into all the details of clinical cases, whether the issue was favourable or not and courageously revealing any errors he had made in order to help others to avoid them.

Another field of surgery which N. I. Pirogov blazed trails in¹ was the ligation of blood vessels². It often happened that, even in cases of light wounds, gangrene ate away the walls of the blood vessels and the patient operated upon died of haemorrhage. Ligation was therefore one of the vital problems. N. I. Pirogov's achievements in the theory and practice of ligating blood vessels solved this problem and enabled surgeons to avoid serious complications during operations.

When in 1841 N. I. Pirogov was appointed to the St. Petersburg Medical Military Academy and put in charge of the surgical ward of a military hospital, he found the sanitary conditions there deplorable. The patients' mattresses were filthy. Bandages and dressings taken off one patient were used to dress others. This lack of cleanliness and elementary hygiene exposed the patients to the danger of infection from one another. N. I. Pirogov, persuaded that prevention is better than cure, immediately began a resolute fight for rigorous sanitary precautions in hospitals, thus contributing, even before asepsis and antiseptics³ were known in medicine, to a noticeable decrease in infection and mortality in hospitals.

The epidemic of cholera which broke out in St. Petersburg in 1841 gave N. I. Pirogov an opportunity to study this then very little known disease. He opened a department for cholera cases in his clinic and performed more than 800 autopsies⁴ on bodies of cholera victims.

We cannot now imagine a major operation without some form of anaesthesia. Up to N. I. Pirogov's time there were no means of making operations painless. At the siege of Salta, in the Caucasus, N. I. Pirogov used ether for anaesthesia on the very battlefield for the first time in history. He also studied chloroform and other anaesthetics and succeeded in convincing both doctors and patients of the benefits of painless operations.

In the Caucasus too, he first made use of starch dressings to immobilize bones in fracture cases. At Sebastopol during the Crimean War he used plaster of Paris instead of starch. Plaster casts are universally used today for the treatment of fractured limbs. They are now a matter of course in hospital practice, but it was only due to N. I. Pirogov's zeal and efforts that they were introduced in his time.

Another important measure taken by N. I. Pirogov for the first time in military medical history was the sorting of the sick and wounded according to the nature and gravity of their complaint. His method of sorting casualties was used by the Soviet Army during the Great Patriotic War.

It was due to N. I. Pirogov's initiative and insistence that nursing sisters — «sisters of mercy» as he called them — were admitted to tend sick and wounded soldiers on the battlefield and in hospitals in the battle zone. This was a bold step for his time, but the hopes he placed in it were not frustrated. The gentle patience and tender care of women played a great part in saving the lives of many brave men wounded in defending their country. Ever since, white-gowned, white-capped sisters have provided comfort, relief and the means of a speedy recovery to sick and wounded soldiers.

N. I. Pirogov was not only a great physician, famous for his successes in the theory of surgery and one of the finest surgeons who ever performed operations. He was a great patriot, a great humanitarian and a fighter for progress. He was a consistent advocate of good medical services for the people, of education for all, and of the emancipation of women. Thanks to his untiring labour, his de-

votion to human nature and his love for his country, he raised Russian surgery and hospital practice to a level till then unknown. He left us all the brilliant and inspiring example of a great man for whom mankind and human happiness were values to be treasured above all others.

Notes

1. *To blaze a trail in* — быть первым в чем-либо (первооткрывателем в чем-либо).
2. *The ligation of blood vessels* — перевязка кровеносных сосудов.
3. *Asepsis and antiseptics* — асептика и антисептика.
4. *Autopsy* — вскрытие трупа для установления причины смерти.

EXERCISES

I. Answer the following questions

1. What made N. I. Pirogov world famous?
2. What was the standard of surgical science in N. I. Pirogov's days? Which subject was sadly neglected in the training of medical students and future surgeons? What was the result of this gap in medical training?
3. What were operations like in N. I. Pirogov's days? Why had both the surgeon and the patient to endure great physical and mental strain?
4. Did the plastic operation N. I. Pirogov performed to restore a patient's nose bring him world renown?
5. What inspired Pirogov to acquire greater knowledge and experience? Why was he never afraid to admit his mistakes?
6. Why was the ligation of blood vessels one of the vital problems of surgery a hundred years ago? Why were N. I. Pirogov's achievements in solving the problem of extreme importance?
7. What was N. I. Pirogov's job at the Military Hospital in St. Petersburg? Describe in details what the sanitary conditions at the hospital were like? What was Pirogov's reaction to the state of affairs there?
8. When did an epidemic of cholera break out in St. Petersburg? What was N. I. Pirogov's contribution to fighting down the disease?
9. Which of N. I. Pirogov's operations revolutionized the science of amputation? Why is the osteo-plastic operation still known as «N. I. Pirogov's operation»?
10. What were the great services rendered by N. I. Pirogov during the Caucasian and Crimean Wars? (Speak in detail.)
11. When was the sorting of the wounded and sick first introduced in military medical history? What were the principles on which the method rested and how did it work?
12. What was N. I. Pirogov's most daring innovation in hospital organisation? Did his innovation take root or were the hopes he placed in it frustrated?
13. What were the qualities N. I. Pirogov combined to raise medicine in his country to a level it had never achieved before.

II. A. Give Russian equivalents of

To perform an autopsy; to abandon a patient as hopeless; prevention is better than cure; cholera victims; a department for cholera cases; a fracture case; a fractured limb; the nature and gravity of a complaint; casualties; to tend sick and wounded soldiers; to blaze a trail in; a matter of course; to immobilize bones; the benefits of painless operations; decrease in mortality; white-dressed and white-capped nurses; to provide comfort and relief to; a major operation; plaster cast; not for renown or reward; to be afflicted with; to administer (a drug).

B. Give English equivalents of

Облегчить страдания больного; больница на 5 тыс. коек; благополучным исход; быть назначенным (на должность); непоправимая ошибка; санитарные условия; оперировать быстро и точно; подвергать кого-либо опасности; начать решительную борьбу против; считать само собой разумеющимся; предотвратить осложнения; быстрое выздоровление; врач-терапевт; студенты, изучающие хирургию; ставить правильный диагноз; кровеносные сосуды; принести мировую известность; санитарные условия; гигиена; асептика и антисептика; признавать ошибки.

III. Make a summary of «N. I. Pirogov» in English for retelling

IV. Find substitutes for the words and phrases in italics

1. The young surgeon *carried out* the operation with great skill.
2. As no X-ray examination was possible the doctor found it hard *to give a quick and correct diagnosis*.
3. The doctors *have given* the patient *up*.
4. People *suffering from diseases* requiring special care and treatment which they cannot get at their home are taken to hospital.
5. In N. I. Pirogov's days no narcotics *were administered* during an operation.
6. The doctor gave her a sedative medicine *to soothe* the pain.
7. N. I. Pirogov's osteo-plastic operation *made him world famous*.
8. N. I. Pirogov *gave treatment to sick people free*.
9. Her broken arm was dressed and *a plaster of Paris bandage was applied*.
10. N. I. Pirogov was *responsible for the introduction of female nursing* in the Crimean War.
11. In 1841 N. I. Pirogov was called to the St. Petersburg Military Medical Academy *to occupy* the chair of surgery.
12. Pirogov was among the first in Europe *to employ* ether anaesthesia.

V. Complete the following sentences

1. To avoid serious complications the patient.
2. The osteo-plastic operation is still known as «N. I. Pirogov's operation» because.
3. As no anaesthesia was used during surgical operations in N. I. Pirogov's days, the patients.

4. Your broken arm will have to be kept in plaster until.
5. The patient was given a sedative drug to.
6. Rigorous sanitary conditions are maintained in surgical wards, dressing rooms and operating rooms not to.
7. The patient's name and the name of the drug must be written on the label because otherwise.
8. The issue was favourable because.
9. The surgeon's job is.
10. A broken limb is kept in a plaster cast to.
11. The sanitary conditions at the St. Petersburg Military Hospital were deplorable because of.

VI. Read the dialogue. Tell its contents in the narrative

Sasha: So you don't believe I'll jump from this platform?

Boris: I bet you won't.

Sasha: All right! Look!

Boris: Well, all the best!... That's a jump for you! Why, he's fairly flying! Well done!...Where's he gone though? I can't see him. I say, Sasha, where are you?

Sasha: Here I am, down here. I think I've hurt my foot.

Boris: Hold on. I'm coming down... Oh! There you are. Can't you stand on your foot at all?

Sasha: I'll try, if you let me lean on your shoulder. U-u-ugh! No, it's no use. I just can't.

Boris: Perhaps you've strained a muscle or you have sprained or dislocated your ankle? Is it a muscle or the bone that hurts?

Sasha: It's the bone.

Boris: Perhaps, it's a fracture, let me feel it. Yes. It looks as though it's broken, but the skin is unbroken so it must be a simple fracture. What can I do for you ?

Sasha: Oh, don't bother. I'll hobble home on one leg somehow.

Boris: No, you can't do that. If you have a fracture you must keep the injured limb perfectly still. Of course, I can't leave you here. There's no telephone close at hand and if I leave you here for too long you can get frostbite, or a cold.

Sasha: What a mess! If my leg is broken, it will take a long time before it is better and I'm supposed to be in the ski competition in a week.

Boris: Well, that is out of question. Look, here's a piece of your ski. You hold this one and I'll get the other and tie them together with a strap to make a splint There you are. That's fine! I'll help you get up and you hold on to my shoulder. Don't be afraid to lean on me, the chief thing is for the weight not to be on the bad leg. We can manage to get to a telephone-box now and I'll call an ambulance. At the hospital they will look after you and give you the proper dressing.

Sasha: All this for a miserable jump!

Boris: Oh, it's all right. Your leg will soon be better and then you will become a good jumper.

VII. Supply the missing words

1. Penicillin is normally ... by intramuscular injection.
2. He was ... wounded in the war.
3. Now the patient was beginning to ... from his operation, though still in a very weak
4. I was treated ... appendicitis by Dr. Morlin.
5. Tumour (*or* growth) in the throat — it was an interesting
6. There could be no question of ... anaesthesia.
7. Any ... operation is dangerous to the patient.
8. Anaesthesia is administered to ... the suffering of the person who is operated on.
9. ... some ointment on the bruise.
10. The shock was enough to burst the stitches and cause an internal
11. The doctor kept the boy in ... until he felt better.
12. The surgeon used a local ... which froze the tissue.
13. The boy ... by the cat's paw.
14. Old people have bones that ... easily.
15. I fell off my bike on the wet road and ... my ankle.

VIII. a) Discuss the different meanings of the word surgery. b) Think of synonyms for the different meanings of this word wherever possible. c) Translate the sentences into Russian

1. They gave him morphine as sedative after surgery.
2. He spoke to the dentist in his surgery.
3. He is far too weak to undergo any surgery.
4. I must work at my surgery.
5. Then he hurried out for his morning surgery.
6. Inside the room, side by side in hospital beds, the patients were recovering from surgery.
7. There was no sign of surgery on his face.
8. The patient died after surgery.
9. I have surgery till nearly nine every evening.
10. He hurried back to the surgery.
11. He put off his call till after his surgery.

IX. a) Explain the meanings of the words and phrases in italics. b) Pick out all the words with the root surg-, discuss their meaning; use them in sentences of your own. c) Translate the extract given below into Russian. d) Sum up the medical advice given below

Whenever you *have a surgical operation* you are taking a calculated risk. There is no certainty that your symptoms will be overcome and they might even

be aggravated. There is no certainty that you will not have **a post-operative complication**, even though your surgeon is skilled to the highest degree and your **general condition** is excellent. There is no certainty either that you **will survive the operation**. It is impossible to know everything about the strength and **weakness of your body**. So all **surgery** must be by its traumatic (injury to tissue) nature alone a calculated risk and never a routine innocuous procedure. If you can get rid of **your condition** by **non-surgical methods**, they should definitely **be given a thorough trial first**.

e) Pick out of the extract above and «The Great Russian Surgeon N. I. Pirogov» all the phrases containing the adjective «surgical» modifying a noun. Replace them by synonymous words and phrases when possible and translate them into Russian.

X. Translate the following sentences into English

1. В прошлые времена больных, страдавших этой болезнью, считали безнадежными, теперь же эта болезнь не является неизлечимой.

2. Он сейчас в перевязочной, ему делают перевязку два раза в день.

3. Что у тебя с рукой? Почему она перевязана?

4. Анатомия — наука о строении организма.

5. Он сломал себе бедро и пролежал в гипсе больше месяца

6. Он сломал руку и ему наложили гипсовую повязку.

7. Гипсовые повязки широко практикуются при переломах.

8. Ампутацию конечности Н. И. Пирогов делал в течение нескольких минут.

9. Сто лет назад безболезненная операция считалась невозможной. Н. И. Пирогов на деле доказал, что это мнение было ошибочным.

10. Введение обезболивания в большой мере облегчило работу хирурга. Оно давало ему время внимательно осмотреть рану и поставить более точный диагноз.

11. Н. И. Пирогов понимал важность свежего воздуха, правильного питания и заботливого ухода для раненых и больных.

12. Н. И. Пирогов впервые привлек женщин — «сестер милосердия» — к уходу за больными и ранеными.

13. В 1846 г. была сделана первая операция с применением обезболивающих средств.

14. Приемная врача была светлой большой комнатой с окнами на улицу.

15. Хирургического вмешательства не потребовалось.

XI. Give English rendering of

Жизнь Н. И. Пирогова, 200-летие со дня рождения которого исполнилось в 2010 году, сложилась тяжело. Несмотря на то, что он был общепризнанным мировым ученым и первоклассным хирургом-практиком, царское правительство подвергало его оскорблениям и гонениям.

Но исключительная честность Н. И. Пирогова в научных исканиях, личной и общественной жизни, его неустанная забота о больных, его про-

грессивные взгляды снискали ему любовь и уважение не только передовой части интеллигенции, но и широких народных масс. «Чудесный доктор», которого так тепло изобразил в своем рассказе А. И. Куприн, не кто иной, как Н. И. Пирогов.

Н. И. Пирогов рано сформировался как ученый. В 18 лет он успешно окончил медицинский факультет Московского университета и в числе других способных юношей был направлен в Дерптский профессорский институт, где подготавливали врачей к профессорскому званию. Юноша с успехом выдержал экзамены и столь же успешно учился.

Напряженная работа в Дерпте, затем усовершенствование в клиниках Парижа и Берлина — и двадцатитрехлетний врач, с блеском защитив докторскую диссертацию, занимает кафедру хирургии в Дерпте. В 1841 году он был назначен профессором Медицинской хирургической академии в Петербурге; в 1847 и 1854 гг. выезжал в действующую армию, на поля сражений, где оказывал помощь раненым.

UNIT IV

FIRST AID STATION

I. Train the pronunciation of the following words

Syringe ['sɪrɪndʒ], thromboembolic [θrombo'embolik], joint [dʒɔɪnt], emergency [ɪ'mə:dʒənsɪ], gynaecology [ˌgaɪnɪ'kolodʒɪ], injure ['ɪndʒə], abrasion [ə'breɪʒən], squeeze [skwi:z], nausea ['no:sjə], nitroglycerin ['naɪtroglɪsə'rɪn], prothrombin [prə'θrombɪn], bruise [bru:z], moan [maʊn], elevate ['elɪveɪt], tourniquet ['tuənɪkeɪ], excessive [ɪk'sesɪv].

II. Pay attention to the prepositions used in the following word combinations

All day round, to be in shock; to arrive in/at; to make a call to some place; to apply a tourniquet to smth; necessary for doing smth; an important thing for smb; to be run over by a car; on the spot; to apply a splint to/over smth; without any delay.

III. Fill in the blanks with prepositions where required

1. There are sterile pincers, syringes, lancets, scalpels, and different sets... surgical instruments ... the surgical nurse's table.
2. Medical students take their examination ... Obstetrics ... the fourth year.
3. The patient complained... a severe, squeezing pain... the substernal area which he had been suffering... ... an hour. Besides the pain radiated ... the left shoulder and arm.
4. «Why is this man moaning?» «He has received serious injuries... his legs».
5. Something is wrong ... my head. I'm afraid it's because ... excessive reading.
6. The patient complained ... nausea ... taking this remedy.

7. The heart muscle is involved ... case ... myocardial infarction.
8. A tourniquet is used ... case ... a profuse arterial bleeding. It is then applied as close ... the wound as possible.
9. A sterile gauze dressing is applied ... an open bleeding wound not only to arrest bleeding but also to prevent bacterial contamination.
10. If a severe burn involves the whole leg and the knee-joint one should apply a splint ... the dressing ... the immobilization ... the injured extremity.
11. After the ambulance doctor gave first aid ... the victim ... a street accident, the latter was transported ... the hospital ... delay.
12. The stretcher-bearers elevated the wounded man and laid him ... a stretcher carefully.
13. ... case ... a street accident one must make a call ... the First Aid Station.
14. A nurse must apply a tourniquet ... the patient's arm before giving him an intravenous injection.

IV. Vocabulary Training

1. Syringe ['sɪrɪndʒ], to sterilize a syringe, syringes are sterilized before giving injections, an ambulance doctor must always have a syringe with him.
2. Emergency [ɪ'mə:dʒənsɪ], emergency case, emergency measures, emergency surgery, emergency therapy, lectures in Emergency Surgery.
3. Gynaecology [ˌɡaɪnɪ'kɒlədʒɪ], to take notes of a lecture in Gynaecology, to pass an examination in Gynaecology.
4. Injure ['ɪndʒə], injured, to injure badly, to injure seriously, to injure slightly, to be injured in an accident, to injure one's arm, to injure one's leg, to injure the kidney, to injure the liver.
5. Abrasion [ə'breɪʒən], abrasions, a slight abrasion, bad abrasions, to get abrasions while falling down, there are abrasions on the patient's face.
6. Bruise [bru:z], bruises, many bruises, there are many bruises on the patient's body, to get bruises in an accident, bruises disappeared after the treatment.
7. Moan [maʊn], to moan with pain, to moan all the time, he is moaning severely, he moaned during this procedure.
8. Elevate ['elveɪt], elevated, to elevate the injured extremity carefully, elevated blood pressure, elevated temperature.
9. Tourniquet ['tuənɪkeɪ], to apply a tourniquet, an ambulance doctor applied a tourniquet to the arm, a tourniquet is used to arrest bleeding.
10. Nausea ['no:sjə], to have nausea, to feel nausea, to complain of nausea, nausea appears, nausea disappears, to take some medicine for nausea, to prevent nausea, to cause nausea.
11. Excessive [ɪk'sesɪv], excessive handling, excessive reading, excessive drinking, excessive heat, excessive cold, excessive fluid.
12. Joint [dʒɔɪnt], joint cavity, joint fracture, joint swelling, knee-joint, joint wound, joint fluid, finger joint, out of joint.

13. Squeeze [skwɪ:z], squeezing, a squeezing pain, to suffer from a squeezing pain, a squeezing pain developed, a squeezing pain disappeared, a squeezing pain subsided.

14. Nitroglycerin ['naɪtrɒglɪsə'rɪn], to take nitroglycerin, pain is relieved by nitroglycerin, pain didn't subside after nitroglycerin, to prescribe nitroglycerin.

15. Thromboembolic [θrɒmbo'emboɪlɪk], thromboembolic team, to call up a thromboembolic team, the arrival of the thromboembolic team, the thromboembolic team arrives at the place of accident.

16. Prothrombin [prəθrɒmbɪn], prothrombin time, to determine prothrombin time.

TEXT 1

FIRST AID STATION

The other day two medical students had a very interesting talk with Victor. Victor had graduated from the University two years before. He had been working as an ambulance doctor at the First Aid Station for two years. The two friends were greatly interested in the work of the First Aid Station. Victor was glad to answer their questions. Victor said that in case of an accident or a sudden severe illness calls were made to the First Aid Station which was on duty all day round¹.

The First Aid Station has many ambulances which are equipped with everything necessary for giving first aid and making a diagnosis. The ambulances carry artificial respiration apparatuses, different medicines, such as painkillers, tonics and sedatives; dressings, first aid instruments, such as pincers, scalpels, syringes and others; sets of splints and stretchers. There are special ambulances equipped with everything necessary for reanimation of the organism². All ambulances are radio equipped. This is a very important thing³ for the ambulance doctor, because it enables him to send the necessary information to the hospital, so that the hospital can prepare beforehand all the necessary instruments for an urgent operation, a blood transfusion or anything else.

The main thing in the work of the ambulance doctor is to make a correct diagnosis quickly. The ambulance doctor must have a deep knowledge of emergency surgery, toxicology, emergency therapy, obstetrics and gynaecology, because he must always do his best⁴ to give the patient a proper aid on the spot.

While working as an ambulance doctor Victor had had some interesting cases. Last June, for example, a call was made to the First Aid Station. It turned out that a man had been run over by a car. When Victor reached the place of the accident he examined the victim. The man was badly injured, he had an open bleeding wound in his leg, his arm was fractured, there were many injuries, abrasions and bruises on his face and forehead. The man lost his consciousness and was moaning all the time.

First Victor tried to arrest profuse arterial bleeding; he elevated the injured extremity carefully and applied a tourniquet to it. Next he applied a sterile gauze dressing on the man's face and forehead to prevent contamination. Then Victor

examined the arm and applied a splint to it. The injection of morphine and camphor having been given, the man recovered his consciousness, but he complained of nausea. It was necessary to transport the patient to the nearest hospital without delay, because the patient was in a very poor state, in which shock might develop as well⁵. The stretcher-bearers laid the patient down on the stretcher carefully and in 15 minutes the patient was brought to the hospital. If the ambulance doctor hadn't given the patient emergency help, the patient would have died.

Once Victor had to give first aid to a boy who was badly burned. He removed only that clothing which was absolutely necessary. The remaining pieces of the clothing were removed from the burned surface with pincers. Victor didn't carry out any other measures to treat the burn, as excessive handling of the burned part could increase pain and cause shock. If Victor had done so, shock would have developed. The burn was covered with a sterile, dry dressing. Doing this Victor tried to handle the burned part as little as possible. As it was a severe burn involving the whole leg and the knee-joint, a splint was applied over the dressing for the immobilization of the injured extremity.

Just the other day Victor was called to a patient with myocardial infarction. Being questioned the patient said he had been suffering from a severe, squeezing pain in the substernal area for two hours. The patient had had such a pain before, but it had been relieved by nitroglycerin. This time the pain was much more severe and it didn't subside after nitroglycerin. Besides the pain radiated to the left shoulder and arm. The examination suggested myocardial infarction.

Victor came up to the ambulance and called up a thromboembolic team. Before the arrival of the thromboembolic team Victor gave the patient an injection of 1 % promidole and 0,1 % atropine, after which the pain considerably subsided. If Victor had not given the patient these injections, the pain would have been too severe. The thromboembolic team having arrived, the electrocardiogram was taken, the blood analysis was made, the prothrombin time was determined. The electrocardiogram and the blood analyses confirmed the diagnosis of myocardial infarction. The patient was transported to the hospital without delay.

Notes

¹ *All day round* — круглые сутки

² *For reanimation of the organism* — для оживления (реанимации) организма. Под реанимацией подразумевается ряд лечебных процедур, например, массаж сердца и другие, способствующие оживлению организма, выведение его из состояния клинической смерти

³ *This is a very important thing* — это очень важно обратите внимание на перевод слова thing после прилагательного: The main thing is to make a correct diagnosis. Главное — это поставить правильный диагноз

⁴ *he must always do his best* — он всегда должен делать все возможное

⁵ *shock might develop as well* — мог также развиться шок; to develop — развиваться, появляться.

EXERCISES

I. Answer the following questions

1. With whom did medical students have a very interesting talk the other day?
2. When did Victor graduate from the University?
3. Where had Victor been working for two years?
4. What do ambulances carry?
5. What is the main thing in the work of the ambulance doctor?
6. What knowledge must the ambulance doctor have?
7. What did Victor do to arrest profuse arterial bleeding?
8. Why did Victor apply a sterile gauze dressing?
9. What injection did Victor give the man?
10. What did the man complain of after he recovered his consciousness?
11. Why was it necessary to transport the man to the nearest hospital without delay?
12. What did the stretcher-bearers do?
13. What had happened to the boy whom Victor gave first aid?
14. How did Victor remove the remaining pieces of the clothing from the burned surface?
15. With what was the burn covered?
16. What did the burn involve?
17. Why was a splint applied over the dressing?
18. What patient was Victor called to just the other day?
19. What did the patient suffer from?
20. What did the examination of the patient suggest?
21. What effect did the injection of promidole and atropine produce on the patient's condition?
22. What procedures were carried out after the arrival of the thromboembolic team?
23. What did the electrocardiogram and the blood analyses confirm?

II. Find English equivalents for the following word combinations and sentences

Обследование наводило на мысль об инфаркте миокарда; тяжелый ожог, поразивший всю голень и коленный сустав; при несчастном случае; шина была наложена поверх повязки для иммобилизации пораженной конечности; излишнее соприкосновение с ожогом усиливает боль и вызывает шок; оказалось, что мужчина попал под машину; мужчина все время стонал; он жаловался на тошноту; оказать первую помощь мальчику; для предупреждения заражения; неотложная хирургия; старался как можно меньше касаться обожженной поверхности; анализ крови на свертывающие факторы; срочная операция; дежурит круглые сутки; остановить сильное артериальное кровотечение; было много травм, ссадин и кровоподтеков; санитары осторожно положили больного на носилки; наложил жгут.

III. A. Translate into Russian stating the tense-forms of the verbs in bold type

1. The victim of a street accident had been moaning since he was run over by a car.
2. How long has the patient been complaining of nausea?
3. The signs of heart impairment had been developing for a week before the woman was examined by a cardiologist.
4. The doctors have been arresting profuse arterial bleeding for five minutes but the male patient is still bleeding.
5. My mother had been suffering from a severe stomachache for an hour before we made a call to the First Aid Station.
6. Since when has the pain been radiating to the left arm and shoulder?

B. Answer the questions paying attention to the tense-forms

1. What language are you studying now? Since when have you been studying it?
2. Do you learn Physiology? How long have you been learning it?
3. Whom are you friendly with? How long have you been friendly with him?
4. What is your father? Since when has he been working as an engineer (doctor ...)?
5. Who is the head of the Chair of Anatomy? Do you know how long he has *been working at this chair*?

IV. Following the rules of the Sequence of Tenses change the sentences below into the past tense

1. The ambulance doctor says the victim of the street accident is in a bad state.
2. The doctor in charge says that patient Nikolaev is quite alert.
3. The patient says he has several injuries of the left lower extremity.
4. The surgeon says there are many bruises and abrasions on the patient's body.
5. My mother says she feels rotten.
6. It turns out this patient's respiration is accelerated.
7. My father says he is suffering from indigestion.
8. The doctor says my little sister must take cod liver oil every day.
9. The doctor thinks that you can take the patient's blood pressure yourself.
10. The doctor believes contamination may develop quickly.
11. The doctor says she has already made an order for the X-ray examination.
12. The ambulance doctor says he has already given first aid to the injured.
13. The mother says her daughter suffered from chicken-pox in her early childhood.
14. They say this man was run over by a car yesterday.
15. The surgeon thinks the fractured bone was set properly.
16. The surgeon is sure this operation will prevent the rupture of the spleen.
17. The nurse says my wound will be dressed after the doctor completes his round.
18. It is well known that a tourniquet is applied in case of profuse bleeding.

V. Find equivalents for the words and expressions in bold type

1. One of the methods to arrest bleeding is to use an instrument for the compression of blood vessels.
2. Can anybody render medical help to an injured person on the spot?
3. Examining the victim of a street accident the ambulance doctor revealed serious fractures of the leg. He had to use a strip of wood to fix the fractured bones.
4. A person badly injured in a street accident was brought to the hospital by ambulance.
5. The patient had serious damages.
6. Instruments for giving intramuscular and intravenous injections were on the nurse's table. She was going to sterilize them.
7. I have hurt my hand badly.
8. The burn was so severe and large that it spread over the whole leg.
9. The patient in Ward 5 was making long, low sounds expressing pain.
10. Falling down he got some injuries to the body so that the skin changed its colour and became blue.

VI. Make up direct questions

Ask your friend: when the surgical nurse sterilizes syringes; what surgical instruments are sterilized before the operation; when he made a call to the First Aid Station; why the call was made to the First Aid Station; when the students of his group will study Obstetrics; in which year Gynecology will be studied by his fellow students; why he is moaning; why he is coughing; what lecture he was taking notes of; why the doctor has elevated the injured extremity; why the injured extremity has been elevated.

VII. Translate the following sentences into English using the active vocabulary of this Unit

- A. 1. Пострадавшему была оказана первая помощь на месте происшествия. Врач скорой помощи наложил жгут на поврежденную ногу и перевязал ее.
2. Пострадавший получил такие тяжелые травмы, что он находился в шоке.
3. Все больные с тяжелыми ожогами должны направляться в больницу немедленно.
4. Паралич поразил обе верхние конечности и правую нижнюю конечность.
5. Чтобы предупредить заражение, нужно тщательно обработать рану и наложить стерильную повязку.
6. Больной жаловался на тошноту после еды.
7. Чрезмерное как наружное, так и внутреннее кровотечение, может привести к смерти.
8. Что с вами? Почему вы так стонете? — Я чувствую ужасную боль в коленном суставе.

9. Вы уже простерилизовали шприцы? — Нет еще. Я собираюсь сделать это сейчас.

10. Что-то не в порядке у меня с желудком. Время от времени я чувствую сжимающую боль в правой верхней части.

11. Когда мальчик попал под машину, мы немедленно вызвали скорую помощь. Первая помощь была оказана пострадавшему быстро.

В. 1. Она бы не жаловалась на сильные головные боли, если бы была на свежем воздухе как можно больше.

2. Если бы мы вчера не вызвали скорую помощь, то моя сестра могла бы умереть, так как у нее был сильный сердечный приступ.

3. На вашем месте я бы занимался в аспирантуре.

4. На вашем месте я провела бы этот опыт сама.

5. Почему вы не поговорили с этим больным? Ваши слова успокоили бы его.

6. Если бы ему не сделали операцию, он несомненно бы умер.

7. Если бы сильный ожог не распространился на всю голень и коленный сустав, тогда не наложили бы шину для иммобилизации конечности.

VIII. Answer the following questions

A. 1. What must you do to make a call to the First Aid Station?

2. When do you usually make a call to the First Aid Station?

3. Who of you has ever given first aid to anybody?

4. What year medical students can give first aid to a victim?

5. Where are medical students taught to give first aid to a victim?

6. What must the ambulance doctor know to give quick and qualified aid?

7. What do we do with a syringe?

8. What must a nurse do with a syringe before giving an injection?

9. How long must syringes be sterilized?

10. What do we do with a splint?

11. What are splints made of?

12. Who usually applies splints?

13. In what cases does an ambulance doctor apply splints?

14. How must an ambulance doctor apply splints?

15. When will you study Emergency Therapy?

16. What doctors must know especially well both Emergency Therapy and Emergency Surgery?

17. What injuries did you get?

18. When did you get these injuries?

19. How did the doctor treat your injuries?

20. Why do patients moan?

21. What medicine does a doctor prescribe if a patient has an elevated blood pressure?

22. Why must an ambulance doctor elevate a bleeding extremity?

23. When is a tourniquet applied?

24. What remedies are administered to prevent contamination?
25. Have you ever suffered from nausea?
26. What did you take for nausea?
27. Who are stretcher-bearers?
28. What do stretcher-bearers usually do?
29. What may excessive reading cause?
30. What must a doctor do if a fracture involves a knee-joint?
31. What medicine can relieve a squeezing pain in the substernal area?

- B.**
1. What would a doctor do if a man lost his consciousness?
 2. Would you make a call to the First Aid Station in case of an accident or a sudden severe illness?
 3. Would you have a scalding foot-bath if you caught a cold?
 4. Where would you go if you were on your vacation?
 5. What would you do if your sister complained of a severe pain in the sub-sternal area?
 6. What would you do if something were wrong with your stomach?
 7. What would happen if the ambulance car didn't arrive in time in case of a street accident?
 8. What would you do if you had a sore throat?
 9. What would have happened to a victim if profuse arterial bleeding hadn't been arrested in time?
 10. In what case would you give an injection of morphine?

IX. Make up your own situations using the following words

1. A burn; to give first aid; to handle; to cause shock; to involve; to remove; a sterile dressing; to injure; an upper extremity.
2. Arterial bleeding; a wound; to apply a tourniquet; to elevate; to lose one's consciousness; to develop; to lay smb down on a stretcher.
3. An artificial respiration apparatus; to equip; an ambulance; to carry; first aid instruments; a splint; a stretcher.
4. To squeeze; much more severe; to call up; to subside; to give an injection; to determine the prothrombin time; to confirm; to transport to the hospital.

X. Suggested topics for oral narrations

1. The equipment of an ambulance car.
2. You are an ambulance doctor. Tell us something about your work.
3. Describe first aid given to a victim of a street accident.
4. Your friend has been badly burned. Describe what first aid you must give him.

Proverbs and Sayings

1. An apple a day keeps the doctor away.
2. What can't be cured must be endured.

Topic Vocabulary

1. abrasion	ссадина
2. accident	несчастный случай
a street accident	несчастный случай на улице
aid	помощь
3. to give (render) first aid	оказать первую помощь
First Aid Station	станция скорой помощи
artificial	искусственный
4. artificial respiration	искусственное дыхание
an artificial respiration apparatus	аппарат для искусственного дыхания
5. bruise	синяк, кровоподтек
burn	ожог
6. a severe (bad, slight) burn	сильный (большой, незначительный) ожог
a first (second, third) degree burn	ожог первой (второй, третьей) степени
burn (v)	обжигать, обжечь
7. to be badly burned	сильно обжечься
the burned surface (part)	обоженная поверхность (часть)
8. to be run over by a car	попасть под машину
contamination	заражение, загрязнение
to introduce contamination	внести заражение
9. to prevent contamination	предотвратить (предупредить) заражение
bacterial contamination	бактериальное заражение
10. without delay	без задержки, без промедления
elevate (v)	поднимать (ся), повышать (ся)
11. to elevate an injured (wounded) man	поднять раненого человека
the blood pressure elevates	повышается кровяное давление
blood sugar is elevated	содержание сахара в крови повышено
emergency	срочный, неотложный, экстренный
an emergency case	экстренный (неотложный) случай; больной, нуждающийся в неотложной помощи
12. an emergency call	экстренный вызов (к больному)
emergency operation (measures)	экстренная операция (меры)
excessive	чрезмерный, излишний, избыточный
13. excessive handling	излишнее соприкосновение
excessive heat (cold, fluid)	чрезмерное тепло (холод, жидкость)
injure (v)	ранить, повредить, ушибить, травмировать
to injure badly (slightly, seriously)	повредить (ранить, ушибить) сильно (слегка, серьезно)
14. to be injured in an accident	быть раненым (получить травмы) во время катастрофы (аварии, несчастного случая)
injury	повреждение, травма, ушиб
internal (external) injury	внутреннее (наружное) повреждение
15. involve (v)	распространяться, поражать; повлечь за собой
16. knee-joint	коленный сустав
moan (v)	стонать
17. to moan with pain	стонать от боли
nausea	тошнота
18. to have (feel, suffer from, complain of) nausea	иметь (чувствовать, страдать от, жаловаться на) тошноту
to cause (prevent) nausea	вызвать (предотвратить) тошноту

19. obstetrics	акушерство
to be in shock	находиться в состоянии шока
20. to cause shock	вызвать шок
to treat shock	вывести из состояния шока
shock therapy	шоковая терапия
splint	шина
21. sets of splints	наборы шин
to apply a splint to/over smth	наложить шину на
squeeze (v)	сжимать(ся),сдавливать,выжимать,выдавливает
22. squeezing pain	стенозирующая (сжимающая) боль
23. stretcher-bearer	санитар-носильщик
24. syringe	шприц
tourniquet	жгут
25. to apply a tourniquet to smth	наложить жгут на что-либо
wound	рана
an open (external, infected)	открытая (наружная, инфицированная) рана
wound	
26. an abdominal wound	рана на брюшной полости
a suppurative (bleeding) wound	гнойная (кровоточащая) рана
to cleanse the wound	промыть (обработать) рану
to close the wound in layers	закрыть рану послойно
27. to dial «103»	набрать (по телефону) номер «103»
sprain (v)	вывихнуть, растянуть связки
28. to sprain an ankle	вывихнуть лодыжку
29. an incised wound	резаная рана
30. a lacerated wound	рваная рана
31. a punctured wound	колотая рана

ADDITIONAL MATERIAL

Being a First Aider

1. Doing your best. First aid is a skill based on knowledge, training and experience. It is not an exact science, and is thus open to human error and circumstances beyond our control. You must accept that however appropriate your treatment, and however hard you try, a casualty may not respond as expected, and may even die. Some conditions inevitably lead to death, even in the best medical hands. Providing you do your best, and what you believe to be correct, your conscience can be clear.

2. Weighing up the risks. While following the golden rule, «First do no harm», you must also accept the principle of the «calculated risk». Even if there is some risk, it is right to apply a treatment that should benefit the majority of casualties. You must not, however, use a doubtful treatment just for the sake of doing something.

3. Being criticised. First Aiders often express fears of doing something wrong. If you keep your head and follow the main rules, you need not fear any legal consequences.

4. Giving care with confidence. Every casualty needs to feel secure and in safe hands. You can create a beneficial atmosphere of confidence and assurance by:

- a) Being in control, both of yourself and the problem.
- b) Acting calmly and logically.
- c) Being gentle, but firm with your hands, and speaking to the casualty kindly, but purposefully.

5. Building up trust. Talk to the casualty throughout your examination and treatment:

- a) Explain what you are going to do.
- b) Try to answer questions honestly to allay fears as best as you can. If you do not know the answer, say so.
- c) Continue to reassure the casualty even when your treatment is completed. Ask if you can help to make arrangements so that any responsibilities the casualty may have, for example, collecting a child from school — can be taken care of.
- d) Do not leave someone whom you believe to be dying. Continue to talk to the casualty, and hold his hands — never let the casualty feel alone.

6. Telling relatives. It may be so that you will have to tell family members that someone has been taken ill or involved in an accident.

- a) Always check first that you are speaking to the right person. Then explain as simply and honestly as you can, what has happened, and, if appropriate, where the casualty has been taken.

- b) Do not beat about the bush or exaggerate — you may cause undue alarm. It is better to admit ignorance than to give misleading information.

7. Coping with children. Young children are extremely perceptive and will quickly detect any uncertainty on your part.

- a) Gain an injured or sick child's confidence by talking first to someone he or she trusts — a parent if possible. If the parent accepts you and believes you will help, this confidence will be conveyed to the child.

- b) It is important that a child understands what is happening and what you intend to do — explain as simply as you can, and do not talk over his or her head.

- c) Do not separate a child from his mother, father or other trusted person.

8. Responsibilities of a First Aider.

- a) To assess a situation quickly and safely and summon appropriate help.
- b) To identify, as far as possible, the injury or the nature of the illness affecting a casualty.
- c) To give early, appropriate and adequate treatment in a sensible order of priority.
- d) To arrange for the removal of the casualty to hospital.
- e) To remain with a casualty until handing him over to the care of an appropriate person.
- f) To make and pass on a report, and give further help if required.

KEYS TO THE EXERCISES

FIRST AID STATION

III. Fill in the blanks with prepositions where required

1. of, on; 2. in, in; 3. of, in, from, for, to; 4. of 5. with, of; 6. of, after; 7. in, of; 8. in, of, to; 9. to; 10. over, for, of; 11. to, of, to, without; 12. down, on; 13. in, of, to; 14. to.

V. Find equivalents for the words and expressions in bold type

1. a tourniquet; 2. give first aid; 3. to apply a splint; 4. a victim of a street accident; 5. injuries; 6. syringes; 7. have injured; 8. involved; 9. was moaning; 10. bruises.

VII. Translate the following sentences into English using the active vocabulary of this Unit

A. 1. The victim was given first aid on the spot of the accident. The ambulance doctor applied a tourniquet to the injured leg and bandaged it.

2. The victim had got such bad (severe) injuries that he was in shock.

3. All patients with severe (bad) burns must be transported to the hospital without delay (immediately).

4. The paralysis involved both upper extremities and the right lower one.

5. To prevent contamination one must cleanse the wound thoroughly and put a sterile dressing.

6. The patient complained of nausea after meals.

7. An excessive bleeding both external and internal may cause death.

8. «What's the matter with you? Why are you moaning so?» «I feel a terrible pain in my knee-joint».

9. «Have you already sterilized the syringes?» «Not yet. I'm going to do it now».

10. Something is wrong with my stomach. Now and again I feel a squeezing pain in the right upper portion. 11. When the boy was run over by a car we made a call to the First Aid Station without any delay. First aid was given to the victim quickly.

B. 1. She wouldn't complain of a severe headache if she were out in the open air as much as possible.

2. If we hadn't made a call to the First Aid Station yesterday, my sister could have died as she had a bad heart attack.

3. If I were you I would attend post graduate courses.

4. If I were you I would carry out the experiment myself.

5. Why haven't you talked to this patient? Your words would calm him.

6. If he hadn't been operated on he would have certainly died.

7. If a bad burn hadn't involved the whole leg and knee-joint the splint for immobilization of the extremity wouldn't have been applied.

TOPICS FOR ORAL NARRATION

Topic 1 SURGERY

Surgery means the performance of the surgical operation. Modern surgery is safe and efficient. The development of surgery has gone hand in hand with improvements in hospital facilities. The best and safest treatment can be given in the operating theatre of the modern hospital, so it is called the surgeon's workshop.

Many factors contribute to the fact, that modern surgery is safe nowadays. They include the improved skills of the surgeons, the availability of new drugs that control infection and produce other important physiological effects, various kind of anaesthesia, careful preoperative and postoperative care of the patients, well equipped operating theatres and resuscitation wards.

Modern surgery is performed under the best possible aseptic conditions, which means exclusion of every possible source of infection. We should mention here scrub up rooms, sterile masks, gowns, caps, rubber gloves, sterile sets of surgical instruments, gauze drains, sponges, towels and the like. There is practically no area in the human body, which is inaccessible to an operation.

Abdominal surgery treats all the organs inside the abdomen.

Orthopaedic surgery is concerned with the diseases of the bones, joints and muscles.

Neurosurgery deals with surgery on the brain and spinal cord.

Plastic surgery relieves disfigurement, deformity and malfunction of the skin or soft tissues.

A «general surgeon» is one, who performs all kinds of operations.

Most of the operations are performed under general anaesthesia. When a patient falls asleep, the surgeon paints the operative field with iodine and alcohol, covers the patient with sterile sheets, fastens them to the patient's skin with the towel clips, leaving bare only the place for the incision. The surgeon makes the incision with the scalpel. Bleeding is stopped with the clamps. The surgeon examines the injured organs and performs the necessary manipulations. Then the wound is closed in layers with or without drainage. The dressing is stuck on the wound. The operation is over.

Surgery can also be classified by its urgency. Emergency surgery is demanded in such cases as fractured skull or acute bowel obstruction. It brooks no delay in getting the patient to the hospital and into the operating theatre. Urgent surgery, as demanded by cancer or kidney stones, may be postponed for a few days. Required surgery, such as tonsillectomies and thyroid operations, may be put off for a few weeks or months. Minor surgery or «office surgery», such as lancing a boil, can be performed without sending the patient to the hospital.

Except in emergency, the patient himself must make a decision to undergo the operation or not. Sometimes a patient will want to know a second independent surgical opinion and there should be no objection to such a consultation.

Special attention is given to preoperative and postoperative care. Preoperative deficiencies in proteins, vitamins, minerals and sugars can be corrected by intravenous infusions. Some sedatives are given to the patient just before the operation, so he enters the operating theatre in a relaxed and semiconscious state. Painkillers and antibiotics to prevent infection are prescribed after the operation. Surgeons now make every effort to get their patients out of bed as soon as possible after the operation.

A good surgeon is far more than a pair of trained hands, he also has the priceless intellectual quality of «surgical judgement», which tells him when and how to operate. It is difficult to be a surgeon, but it is very noble to be a good surgeon.

Topic 2

GIVING FIRST AID

In case of an accident or a sudden severe illness we usually make calls to the First Aid Station. It is on duty all day round.

The First Aid Station has many ambulances that are equipped with everything necessary for giving first aid and making a diagnosis. The ambulances carry artificial respiration apparatuses; different medicines, such as painkillers, tonics and sedatives; dressing; first aid instruments, such as pincers, scalpels, syringes and others; sets of splints and stretchers. There are special ambulances equipped with everything necessary for reanimation of the organism. All ambulances are radio equipped. This enables the doctors to send the necessary information to the hospital, so that the hospital can prepare beforehand all the necessary instruments for an urgent operation, a blood transfusion or anything else.

Giving first aid demands high skills and qualification. The ambulance doctor must have deep knowledge of emergency surgery, toxicology, emergency therapy, obstetrics and gynaecology, because he must always do his best to make a correct diagnosis quickly and to give the patient a proper aid on the spot.

Once a call was made to the First Aid Station. It turned out that a man had been run over by a car. The man was badly injured, he had an open bleeding wound in his leg, his arm was fractured, there were many injuries, abrasions and bruises on his face and forehead. The man was moaning with pain. Then he lost his consciousness.

First the ambulance doctor tried to arrest profuse arterial bleeding. He elevated the injured extremity carefully and applied a tourniquet to it. He also applied a sterile gauze dressing on the man's face to prevent contamination. The doctor examined the arm and applied a splint to it. The injection of morphine

and camphor was given and the man recovered his consciousness, but he complained of nausea.

The stretcher-bearers laid the patient down on the stretcher and 15 minutes later the patient was brought to the hospital by an ambulance car.

The next patient was suffering from a severe squeezing pain in the substernal area. The patient had had such pain before, but it had been relieved with nitroglycerin. Besides, the pain radiated to the left shoulder and arm. The examination suggested myocardial infarction. The thromboembolic team took the electrocardiogram, made his blood analysis and determined the prothrombin time. The analyses confirmed the diagnosis of myocardial infarction. The patient was given the injection of promidole and atropine after which the pain considerably subsided. The patient was transported to the hospital without delay. It is very responsible to be an ambulance doctor, because the lives of the patients are in doctors' hands and depend on the first aid, given quickly and properly on the spot.

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Швец Наталья Анатольевна

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(на английском языке)

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для студентов 1–2 курсов лечебного и медико-диагностического факультетов

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