МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ

УЧРЕЖДЕНИЕ ОБРАЗОВАНИЯ

«ГРОДНЕНСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ»

Кафедра пропедевтики внутренних болезней

**МЕДИЦИНСКИЙ УХОД И МАНИПУЛЯЦИОНАЯ ТЕХНИКА**

(методические рекомендации для студентов II курса факультета иностранных учащихся*, обучающихся на английском языке*)

**MEDICAL CARE AND MEDICAL MANIPULATIONS**

Methodical recommendation*s for II-nd year students of foreign faculty*

*(who are studying in English)*

Гродно, 2018

ГрГМУ

Методические рекомендации подготовлены сотрудниками кафедры пропедевтики внутренних болезней УО «Гродненский государственный медицинский университет» зав. кафедрой Пронько Т.П. и ассистентом Поплавской Э.Э. в соответствии с типовой учебной программой по дисциплине «Медицинский уход и манипуляционная техника» для специальностей 1-79 01 01 «Лечебное дело», утвержденной первым заместителем Министра образования Республики Беларусь 03.10.2018г., регистрационный номер ТД – L. 644/тип.

**Study 1.**

**Duties of the nurse of the therapeutic Department. Medical ethics and deontology in the professional activity of a nurse.**

**Goal: To instruct with role of patient care, medical ethics and deontology, Duties of the nurse of the Therapeutic Department.**

*Control questions:*

1. The definition of "medical care".
2. The role of patient care in the treatment process.
3. The role of health professionals in the treatment and care of patients.
4. The rights and duties of nurses.
5. Ethical and juridical (legal) responsibility of medical workers.
6. Personal hygiene of medical personnel.
7. What is the concept of ethics?
8. What is the concept of deontology?
9. Deontological requirements for the individuality of a nurse.
10. The concept of iatrogenic diseases.

**Study 2**

**Organization of work of the nurse's workplace (reception). Maintenance of medical records.**

**Goal: To study the basic rules of work and duties of a nurse. Get acquainted with the device of the nurse's workplace, maintaining medical documentation**.

*Control questions****:***

1. The equipment of a workplace of the nurse.
2. Organization of work of the nurse's workplace (reception).
3. Duties of the ward nurse.
4. Medical documentation, rules of maintenance medical documentation
5. Rules of shift of nurses at the end of duty.
6. Selection of appointments from the hospital patient's medical records.

*Practical skills:*

1. Maintenance of medical records the ward nurse.
2. Selection of appointments from the list of prescriptions.
3. Selection of medicines from the list of prescriptions.

**Study 3**

**The activities of senior nurse of Therapeutic Department**

**Goal: To study the basic rules and responsibilities of the senior nurse of the therapeutic Department. Get acquainted with the management of medical records of the senior nurse of the therapeutic Department.**

*Control questions****:***

1. Duties of the senior nurse of the Therapeutic Department.
2. Organization of work of the senior nurse of Therapeutic Department.
3. Medical documentation, rules of medical records management.
4. Rules of the morning planning sessions during the shifting of duties.

*Practical skills:*

1. Preparation of demands for obtaining medicines from the pharmacy.
2. Management of medical records by the senior nurse of the therapeutic Department.

**Study 4**

**Storage and record keeping of medicines, narcotic drugs and psychotropic substances.**

**Goal: To study the rules of prescribing, storing medicines, narcotic drugs and psychotropic substances.**

*Control questions****:***

1. Extract, storage of medicines by the ward nurse.
2. Extract, storage of medicines by the senior nurse of the Department.
3. Extract, storage of narcotic drugs and psychotropic substances.
4. Write off of narcotic and potent drugs.

*Practical skills:*

1. Extract of medicines by the ward nurse.

**Study 5**

**General rules for the use of medicines. Enteral administration of drugs.**

**Goal: To study the rules of use of enteral medicines, distribution of medicines.**

*Control questions****:***

1. Preparation and rules of distribution of various forms of medicines.
2. Characteristics of enteral methods of remedy use.
3. Rules of using of liquid, tablets and powdered forms of remedies.
4. Sublingual and buccal technique taking of medication.
5. Rules of distribution of enteral medicines.
6. Features of the using of enteral medicines in elderly and senile patients, patients with swallowing disorders, intellectual and mnestic disorders.

*Practical skills:*

* 1. Distribution of enteral medicines.

**Study 6**

**External ways of drug administration.**

**Goal: To examine the external ways of introduction of medicines. To master the technique of instilling drops in the eyes, nose, ears, laying ointment for the eyelid, the use of suppositories, the application of drugs to the skin.**

*Control questions****:***

1. Features of external methods of drug administration.
2. The technique of instilling drops in the eyes, nose, ears.
3. The technique of laying the ointment under the eyelid.
4. Methods of application of suppositories.
5. Methods of application of remedies on the skin.

*Practical skills:*

1. Carry in grubbing, application of drug to the skin.
2. The technique of instilling drops in the eyes, nose, ears.
3. The technique of laying the ointment under the eyelid.
4. The technique of application of suppositories.

**Study 7**

**Inhalation method of drug administration.**

**Goal: To study the technique of inhalation method of drug administration. To master the method of use of individual inhaler, spacer, spinhaler, turbuhaler, the use of nebulizer**.

*Control questions****:***

1. Characteristics of the inhalation method of drug administration.
2. The use of individual inhaler and spacer.
3. The use of spinhaler, turbuhaler and multidisk.
4. Types of nebulizers and their characteristics.
5. Rules for the use of the nebulizer.

*Practical skills:*

1. The use of individual inhaler and spacer.
2. Rules for the use of the nebulizer.

**Study 8**

**General inspection.**

**Goal: Master the rules of General inspection of the patient. To master the methods of thermometry and registration of received data.**

*Control questions****:***

1. Assessment of the state of the patient.
2. Assessment of the patient's position.
3. Determination of body mass index (Quetelet index).
4. Inspection of skin, visible mucous membranes.
5. Edema, their types.
6. Methods of determination of edema.
7. Storage and disinfection of thermometers.
8. Temperature measurement technique.
9. Registration of temperature measurement results.
10. The concept of fever. Types of fever, their graphic image.
11. Periods of fever.

*Practical skills:*

1. General inspection of the patient.
2. Determination of body mass index.
3. Determination of peripheral edema and ascites.
4. Temperature measurement technique.
5. Registration of temperature measurement results.

**Study9**

**Diet. The concept of clinical nutrition.**

**Goal: To study the features of dietary nutrition of patients and the organization of patient nutrition in health care organizations, especially the nutrition of patients with self-care deficiency. To master the technique of feeding of patients with a probe.**

*Control questions****:***

1. The concept of the caloric intake.
2. The human body needs protein, fat, carbohydrates, vitamins, mineral salts, water.
3. The importance of diet as a therapeutic factor.
4. Therapeutic diets.
5. Organization of patient’s nutrition in health care organizations.
6. Types of enteral nutrition.
7. Feeding patients with self-care deficiency, elderly and senile, bedridden.
8. The concept of artificial feeding of patients with a probe and parenterally.

*Practical skills:*

1. Feeding patients with self-care deficiency, elderly and senile, bedridden.
2. Making an application for the nutrition for the catering Department of health care institutions care institutions.

**Study 10**

**Observation and care of patients with diseases of respiratory system**

**Goal: To study the main symptoms of respiratory diseases. Learn breathing observation, determination of breathing frequency. To learn the features of care for patients with respiratory diseases, febrile patients.**

*Control questions****:***

1. The basic idea of the function of the respiratory system.
2. The main complaint with the disease of the respiratory system
3. Signs of external respiratory disorders, their assessment
4. Determination of breathing frequency.
5. Rules of use a handheld inhaler.
6. The collection of sputum for general analysis, for the analysis of Mycobacterium tuberculosis and atypical cells.
7. Methods of disinfection care items: processing and distribution of individual spittoons sputum in somatic hospitals and TB health facilities.
8. Nutrition of patients with respiratory diseases.
9. Care for patients with respiratory diseases.
10. Features of medical care and monitoring of elderly and senile patients with respiratory diseases.

*Practical skills:*

1. Collection of sputum for laboratory testing.
2. Collection of sputum for bacteriological testing/
3. Taking a swab from the area of the throat and nose for bacteriological examination
4. Ability to use a handheld inhaler.
5. Determination of breath rate.

**Study 11**

**Medical care for patients with chest pain, shortness of breath, suffocation, hemoptysis and pulmonary bleeding.**

**Goal: Learn the basic rules of care and first aid for patients with chest pain, shortness of breath, suffocation, hemoptysis and pulmonary bleeding.**

*Control questions****:***

1. Medical care and first aid for patients with chest pain

2. Medical care and first aid for patients with hemoptysis, pulmonary bleeding.

3. Medical care and first aid for patients with cough.

4. Medical care and first aid for patients with bronchial asthma attacks.

5. Care for patients with fever depending on stage of fever.

**Study 12**

**Oxygen therapy for patients with respiratory diseases. Peakflowmetry.**

**Goal: To Introduce the method of oxygen therapy and instrumental methods of investigation.**

*Control questions****:***

1. The concept of oxygen therapy, their types.
2. Indications for oxygentherapy.
3. Safety when working with oxygen devices.
4. Rules peakflowmeters and registration of data in med. documentations.
5. The concept of instrumental methods of respiratory research (spirography, pneumotachography, bronchoscopy, bronchography).
6. Preparation of patients for instrumental methods of research.

*Practical skills:*

1. Carrying oxygen therapy by different methods.
2. Rules peakflowmeters and registration of data in med. documentations.

**Study 13**

**Observation and care of patients with diseases of cardiovascular system.**

**Goal: to Study the main symptoms in diseases of cardiovascular system. To learn the features of care for patients with diseases of the cardiovascular system. To master the technique of registration of blood pressure and pulse determination**.

*Control questions****:***

1. The main complaints in patients with diseases of cardiovascular system.
2. What is pulse?
3. The method of counting the pulse.
4. Method of measurement of blood pressure.
5. Registration of data to medical documentation.
6. Cardiac edema: the mechanism of occurrence, detection methods.
7. The concept of water balance, data recording in the card of the account of water balance.
8. Characteristics of therapeutic diet used in patients with cardiovascular diseases.
9. Care for patients with diseases of the cardiovascular system.
10. Features of patient care after cardiac surgery.
11. Patient care during computer monitoring of cardiac activity.

*Practical skills:*

1. Determination of water balance.
2. Blood pressure measurement.
3. Determination of pulse.

**Study 14**

**Care for patients with urgent conditions in cardiovascular diseases.**

**Goal: to Study the care and provision of first aid to patients with emergency conditions in cardiovascular diseases.**

*Control questions****:***

1. The concept of acute coronary disease (angina, myocardial infarction).
2. The concept of acute and chronic heart failure.
3. The concept of hypertension.
4. The concept of acute circulatory collapse (syncope, collapse, shock).

*Practical skills:*

1. Providing first aid for patients with pain in the heart
2. Providing first aid for patients in case of suffocation.
3. Providing first aid in case of syncope, collapse, shock.
4. Providing first aid in hypertensive crisis.

**Study 15**

**ECG registration.**

**Goal: To study and master the technique of ECG registration.**

*Control questions****:***

1. Structure of digital ECG system.
2. Leads, rules of electrode application.
3. ECG registration rules.
4. Registration of medical documentation for electrocardiography.
5. Safety during work with a digital ECG system (prevention of electric shock).
6. Disinfection of the electrodes and the medical bed.

*Practical skills*:

1. Technique of ECG registration.

**Study 16**

**Observation and care of patients with diseases of gastrointestinal tract.**

**Goal: to Study the features of care and monitoring of patients with diseases of the digestive system. To learn the methods of preparation of patients for x-ray, endoscopic and ultrasound examination**.

*Control questions****:***

1. The main complaints of the patients with diseases of gastrointestinal tract.
2. Observation and care of patients with diseases of the digestive system.
3. Diet of patients with diseases of the digestive system.
4. Features of care for patients with diseases of the Central nervous system, after surgery on the abdominal organs.
5. Preparation of patients for x-ray examination of the stomach, intestines, gallbladder and biliary tract.
6. Preparation of patients for esophagogastroduodenoscopy, proctosigmoidoscopy, colonoscopy.
7. Preparation of patients for ultrasound examination of the digestive system.

*Practical skills:*

1. Preparation of patients for x-ray examination of the stomach, intestines, gallbladder and biliary tract.

2. Preparation of patients for esophagogastroduodenoscopy, proctosigmoidoscopy, colonoscopy.

3. Preparation of patients for ultrasound examination of the digestive system.

**Study17**

**Medical care for patients with abdominal pain, heartburn, vomiting, gastrointestinal bleeding, tympanites, constipation, diarrhea.**

**Goal: To Study the care of patients with abdominal pain, heartburn, vomiting, gastrointestinal bleeding, tympanites, constipation, diarrhea. To learn the methods of collection of vomit for the study. Be able to provide first aid for patients with vomiting, gastrointestinal bleeding.**

*Control questions:*

1. Care and first aid for patients with heartburn.
2. Care and first aid for patients with abdominal pain.
3. Care and first aid for patients with vomiting.
4. Methods of collection of vomit for examination.
5. Care and first aid for patients with gastric bleeding.
6. Care for patients with tympanites and stool disorders (constipation, diarrhea).
7. The main complaints in patients with diseases of the intestine.
8. Care and first aid to patients with diarrhea, constipation, fecal incontinence, tympanites.
9. The method of collecting feces for Stool test.
10. Collecting feces for bacteriological test.

*Practical skills:*

1. The method of collecting feces for Stool test.

2. Collecting feces for bacteriological test.

**Study 18**

**Diagnostic and therapeutic nursing procedures. The introduction of a tube into the stomach.**

**Goal: to master the technique of introducing oral and nasogastric tube s into the stomach, the technique of gastric lavage with a tube and gastroenteric tube feeding of the patient.**

*Control questions****:***

1. Equipment for gastric lavage.
2. Introduction of the tube into the stomach. Indications, contraindications, possible complications.
3. Introduction of oral and nasogastric tubes into the stomach.
4. Gastric lavage with a tube.
5. Gastroenteric tube feeding of the patient.

*Practical skills:*

1. Introduction of oral and nasogastric tubes into the stomach.
2. Gastric lavage with a tube.
3. Gastroenteric tube feeding of the patient.

**Study 19**

**Diagnostic and therapeutic nursing procedures. The performance of various types of enemas.**

**Goal: To study and master the technique of enema and vapor tube.**

*Control questions****:***

1. Indications, contraindications, possible complications of the vapor tube.
2. Introduction of the vapor tube into the rectum.
3. Equipment for the performance of enemas.
4. Preparation of the patient and conditions for performing a cleansing enema.
5. Enemas, types of enemas. Indications and contraindications for the production of various types of enemas.
6. The technique of the cleansing, siphon, medicinal enema.

*Practical skills:*

1. The performance of cleansing, siphon, medicinal enema
2. Introduction of the vapor tube into the rectum.

**Study 20**

**Observation and care of patients with diseases of the urinary system.**

**Goal: To study the features of care for patients with diseases of the urinary system.**

*Control questions****:***

1. The main complains in patients with the diseases of kidneys and urinary tract.
2. Diuresis. Measurement of daily diuresis.
3. Monitoring of changes in urine diuresis and urine properties.
4. Features of patient care in diseases of the kidneys and urinary tract.
5. Medical care for patients with acute urinary retention, urinary incontinence, renal colic, edema.
6. Characteristics of diets used in patients with diseases of the urinary system.
7. Medical care and supervision of elderly and senile patients with kidney and urinary tract diseases.
8. The method of urine collection for the urine test, Nechyporenko urine test, Zymnytskyi test.
9. The method of urine collection for detection of 24-hour glucose level.
10. Preparation of the patient for x-ray and ultrasound examination of the kidneys and urinary bladder.

*Practical skills:*

1. Measurement of daily diuresis. Registration data of measurement to medical documentation.
2. The method of urine collection for urine test, Nechyporenko urine test, Zymnytskyi test.
3. The method of urine collection for detection of 24-hour glucose level.

**Study 21**

**Diagnostic and therapeutic nursing procedures.**

**Catheterization of the bladder.**

**Goal: Master the technique of collecting urine for tests. Master the technique of functional kidney tests. Master the technique of urinary bladder catheterization.**

*Control questions****:***

1. Urinary bladder catheterization. Indications, contraindications, complications.
2. Equipment for bladder catheterization.
3. Bladder catheterization using Nelaton and Foley urological catheter.
4. Technique of bladder catheterization in women.
5. Technique of bladder catheterization in men.
6. Removal of urine from the bladder, urine sampling for laboratory testing using a catheter.
7. Introduction of the medication into the bladder.
8. The use of different types of urinals to collect urine.
9. Care for urological catheter and urinals installed for a long time.

*Practical skills:*

1. Preparing the workplace for bladder catheterization.

2. Bladder catheterization using a urological Nelaton catheter.

3. Collection of urine for laboratory testing using a catheter.

4. Bladder catheterization using a Foley urological catheter.

5. Care for urological catheter installed for a long time.

**Study 22**

**Observation and medical care of patient with movement disorders and self-care violation.**

**Goal: To learn the features of care for elderly and senile patients, with movement disorders and self-care violation.**

*Control questions****:***

1. Features of elderly and senile patients.

2. Features of care for elderly and senile patients.

3. Monitoring and hygienic care of patients with self-care deficit and motor activity disorders.

4. Position of patient in bed and help the patient to change his position in bed, when changing bed linen and underwear in seriously ill.

5. Assistive devices for comfortable position of the patient.

6. Feeding elderly and senile patients in bed.

7. Feeding patients with self-care deficiency and motor activity disorders.

*Practical skills:*

1. Changing of a bed linen and underwear of the patients with the deficiency of self-care and impaired motor activity.

**Study 23**

**Monitoring and medical care of patients in critical condition.**

**Goal: To study the features of monitoring and medical care for patients in critical condition.**

*Control questions****:***

1. Monitoring and medical care of patients in the intensive care unit.

2. Monitoring of the patient's condition according to the monitoring equipment.

3. Clinical signs of terminal conditions.

4. Signs of clinical and biological death.

5. Statement of death, legal and ethical standards of care for the corpse.

6. Rules for handling a corpse.

7. Paperwork for delivery to the mortuary.

8. Sanitary and anti-epidemic regime of intensive care units.

**Study 24**

**Organization of work of the procedural room. Duties of the procedural nurse. Equipment of a procedural room.**

**Goal: To study basic principles of organization of work of the procedural room, duties of the procedural nurse**.

*Control questions****:***

1. Duties of procedural nurse.
2. Equipment of a procedural room
3. Rules of safety work of the procedural nurse at the workplace.
4. Rules of personal hygiene of the procedural nurse.
5. Rules of use of sanitary clothes by the procedural nurse.

*Practical skills:*

1. Rules of use of sanitary clothes by the procedural nurse

**Study 25**

**Organization of work of the procedural room. Rules of work with medical waste.**

**Goal: To study basic rules of work with medical waste and rules of disinfection of reusable and disposable medical devices.**

*Control questions****:***

1. Medical documentation of the procedural room.

2. Medical waste: groups.

3. Rules of medical waste management.

4. Disinfection of reusable medical devices.

5. Pre-sterilization treatment of medical devices.

6. Quality control of pre-sterilization treatment of medical devices.

7. Disinfection of a syringe with a disposable needle.

8. Disinfection of disposable system for infusion.

*Practical skills:*

1. Disinfection of reusable medical devices.
2. Pre-sterilization treatment of medical devices.
3. Quality control of pre-sterilization treatment of medical devices.
4. Disinfection of a syringe with a disposable needle.
5. Disinfection of disposable system for infusion.

**Study 26**

**Organization of work of the procedural room. Disinfection measures in the procedural room.**

**Goal: To study the rules of disinfection measures in the procedural room. To master the preparation of the procedural room for injections and intravenous infusions.**

*Control questions****:***

1. Disinfection measures in the procedural room.

2. Current and General cleaning of the procedural room.

3. Preparation of the procedural room for injections and intravenous infusions.

*Practical skills:*

1. Disinfection the treatment room.

2. Current and general cleaning of the procedural room.

3. Preparation of the procedural room for injections and intravenous infusions.

**Study 27**

**Collect of drug solution from an ampoule and a vial into a syringe.**

**Goal: To master the preparation of medicines for parenteral administration and a collect of drugs from the ampoule and vial into the syringe.**

*Control questions****:***

1. Parenteral methods of medicines administration: intradermal, subcutaneous, intramuscular injections, intravenous drug administration using a syringe and infusion system, their characteristics.

2. Features parenteral administration of medicines in the procedural room of the health organization.

3. Preparation of medicines for parenteral administration.

4. Collect of medicines from an ampoule and a vial into a syringe.

5. Rules of storage of the opened vial with the medicines.

*Practical skills:*

1. Collect of medicines from an ampoule and a vial into a syringe.

**Study** 28

**Intradermal and subcutaneous injections.**

**Goal:**  To master the technique of intradermal and subcutaneous injections.

*Control questions****:***

1. Indications and contraindications to intradermal injections.

2. Indications and contraindications to subcutaneous injections.

3. Preparation of the patient's skin for injection.

4. Technique of subcutaneous and intradermal injections.

5. Subcutaneous administration of insulin.

6. Subcutaneous insulin injection using a syringe pen.

7. Possible complications of subcutaneous and intradermal injections.

*Practical skills:*

1. Technique of subcutaneous injections.

2. Technique of intradermal injections.

**Study** 29

**Intramuscular injections.**

**Goal:**  To master the technique of intramuscular injections.

*Control questions****:***

1. Indications and contraindications to intramuscular injections.

2. Preparation of the patient's skin for injection.

3. Technique of intramuscular injections.

4. Features of injection of oil solutions and bicillin.

5. Possible complications in intramuscular injections.

*Practical skills:*

1. Technique of intramuscular injections.

**Study 30**

**Collection blood from a vein.**

**Goal: To master the technique of taking blood from a vein with a syringe using the vacuum system S-Monovette and Vacutainer.**

*Control questions****:***

1. Characteristics of medical devices for blood sampling from a vein.

2. Collection blood from a vein with a syringe.

3. Collection blood from a vein by S-Monovette vacuum system.

4. Collection blood from a vein by a Vacutainer system.

*Practical skills:*

1. Collection blood from a vein with a syringe.

2. Collection blood from a vein by S-Monovette vacuum system.

3. Collection blood from a vein by a Vacutainer system.

**Study** 31

**Preparation of blood for transportation to the laboratory, registration data in medical documentation. Preventive measures in case of emergency contact with blood.**

**Goal: To study the rules of preparation of blood for transportation to the laboratory, the rules of registration data in medical documentation and measures in case of emergency contact with blood.**

*Control questions****:***

1. Preparation of blood for transportation to the laboratory.

2. Registration data in medical documentation.

3. Rules of transportation of blood to the laboratory.

4. Preventive measuresin case of emergency contact with blood.

5. Features of blood transportation to the bacteriological laboratory.

*Practical skills:*

1. Preparation of blood for transportation to the laboratory.

2. Registration data in medical documentation.

**Study 32**

**Intravenous infusion of medicines using a syringe.**

**Goal: To master the technique of intravenous injections.**

*Control questions:*

1. General characteristics of intravenous infusions.

2. Equipment for intravenous administration of medicines using a syringe.

3. The placing of a tourniquet on the shoulder.

4. Indications and contraindications for intravenous administration of medicines.

5. Technique of intravenous jet infusion.

6. Complications of intravenous infusions.

*Practical skills:*

1. The placing of a tourniquet on the shoulder.

2. Technique of intravenous infusion using a syringe.

**Study** **33**

**Filling the system for intravenous dropping infusion. Intravenous administration of the medicine using the infusion system.**

**Goal: To master technique of intravenous dropping infusion.**

*Control questions****:***

1. Characteristics of a single-use system for intravenous dropping infusion.

2. Indications and contraindications for intravenous dropping infusion.

3. Technique of intravenous dropping infusion.

4. Supporting the necessary speed of intravenous dropping infusion.

5. Shift a bottle with infusion solution.

6. Intravenous administration of the drug to the patient during infusion.

7. Complications of intravenous infusions.

8. Possible complications of intravenous dropping infusion.

*Practical skills:*

1. Filling the system for intravenous dropping infusion.

2. Intravenous infusion of the medicine using the infusion system.

3. Shift a bottle with infusion solution.

4. Intravenous administration of the medicine to the patient during intravenous dropping infusion.

**Study 34**

**Injections of medicines in the ward of the hospital, at home and at the place of accident.**

**Goal: To study the features of injections in the ward of the hospital, at home and the place of accident. To master the technique of peripheral venous catheter setting and.**

*Control questions****:***

1. Intravenous administration of the medicines using a device for infusion into small veins "needle-butterfly".

2. Peripheral venous catheter placement.

3. Infusion therapy using a peripheral venous catheter.

4. Care for peripheral venous catheter.

5. Removal of peripheral venous catheter.

6. Dosed administration of medicines using a syringe infusion pump.

7. Characteristics of medical devices for parenteral drug administration.

8. Features of parenteral administration of medicines in the ward of the hospital, at home and at the place of accident.

9. Possible complications in parenteral administration of medicines, first aid.

*Practical skills:*

1. Peripheral venous catheter placement.

2. Care for peripheral venous catheter.

3. Removal of peripheral venous catheter.

4. Rules of using of the syringe infusion pump.