MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
V. N. Karazin Kharkiv national university

ORGANIZATION OF WORK AND RESPONSIBILITIES OF NURSE IN MANIPULATIVE CABINET. SANITARY AND EPIDEMIOLOGICAL MODE OF MANIPULATIVE CABINET. METHODS AND TECHNIQUES OF TAKING A COMPLETE BLOOD COUNT, BLOOD GLUCOSE ANALYSIS, BIOCHEMICAL AND BACTERIOLOGICAL BLOOD STUDIES. TECHNIQUES OF SUBCUTANEOUS, INTRAMUSCULAR, INTRAVENOUS INJECTIONS. FEATURES OF ANTIBACTERIAL MEDICINES ADMINISTRATION

Methodological recommendations
for independent preparation for practical classes
for the 3th year higher medical education applicants
in the discipline «Nursing practice. The main duties and professional activities of medical nurse in therapeutic department»

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О-72 Organization of work and responsibilities of nurse in manipulative cabinet. Sanitary and epidemiological mode of manipulative cabinet. Methods and techniques of taking a complete blood count, blood glucose analysis, biochemical and bacteriological blood studies. Techniques of subcutaneous, intramuscular, intravenous injections. Features of antibacterial medicines administration : methodological recommendations for independent preparation for practical classes for the 3th year higher medical education applicants in the discipline «Nursing practice. The main duties and professional activities of medical nurse in therapeutic department» : translation from Ukrainian language / edited by : Mariia S. Brynza, Ella V. Karnaukh, Olena S. Makharynska and others. – Kharkiv : V. N. Karazin KhNU, 2020. – 27 p. : website : http://medicine.karazin.ua/en/kafedri/kafedra-propedevtiki-vnutrishnoi-meditsini-i-fizichnoi-reabilitatsii-/navchalno-metodichni-materiali-dlya-studentiv

The methodological recommendations were developed by the team of teachers of the Department of internal medicine propaedeutic and physical rehabilitation of V. N. Karazin Kharkiv national university of the School of medicine. An indicative map of the applicants work for higher medical education is provided, with clear, consistent and detailed recommendations for preparation at each stage of the practical training. The list of basic theoretical questions and practical skills, structure and content of topics, test modules for the initial and final level of knowledge control are given, the basic and additional literature is specified, there are references to the electronic resources of department's educational materials in the annexes.

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ESTIMATED MAP OF WORK FOR HIGHER MEDICAL EDUCATION APPLICANTS FOR PRACTICAL CLASSES PREPARATION

Preparatory phase:	
1.	To know **the interdisciplinary integration** of practical classes topic with the acquired theoretical knowledge and practical skills in basic disciplines (medical biology, medical and biological physics, Latin language, human anatomy, normal and pathological physiology, biological and bioorganic chemistry, pathological anatomy, microbiology, virology and immunology, pharmacology etc.). Acknowledge the terminology (including Latin transcription).
2.	**Motivational characteristic** and **substantiation of the topic** of the practical lesson **on behalf of the formation of clinical thinking,** in particular for the further development of skills to apply knowledge and certain practical skills established on the basis of the educational-qualification characteristic (EQC) and the educational-professional training (EPT) of the medical specialty.
3.	To give better insights into the types of student's educational activity, information provided on the reference stands of the department: **thematic-calendar plans of lectures**, **practical classes and extra-curriculum independent work of students (ISW)**, corresponding to the curriculum and to the working program in discipline «**Nursing practice. The main duties and professional activities of medical nurse in therapeutic department**».
4.	Utilization of the basic and additional **educational and methodical literature**: ● **textbooks** and **tutorials** (printed and electronic versions) which are listed in these guidance after the theoretical section; ● **educational and methodological materials of the department** (methodological recommendations for student's preparation for practical classes and for independent student's work);

● attendance of **lectures** (on-site supply of the educational process using multi-media presentations during lectures) – according to the thematic plan. Usage of **printed publications** for classes preparation, they can be obtained from the library, and / or **electronic versions of it**, that available on the official website of the V. N. Karazin KhNU http://www.univer.kharkov.ua/ua/departments (Section navigation: ... / Schools / Departments / Propaedeutics of internal medicine and physical rehabilitation) – ref. Annex 1; and in the open interactive database of the electronic archive of the V. N. Karazin KhNU Repository http://ekhnuir.univer.kharkov.ua (navigation: School of medicine / Educational editions) – ref. Annex 2. It is advisable to note the main issues in the form of summaries.
Main phase: Practical classes duration is 4 academic hours, they are held at **the clinical base of the department** — Specialized medical and sanitary department № 13 (Kharkiv, Kyivsky district, Academika Kurchatova avenue, 29) – future V. N. Karazin KhNU Clinic – ref. Annex 3. **NOTE!** It is forbidden to attend department classes without a medical uniform, replaceable shoes, medical cap, mask, shoe covers, stethofonendoscope.
1. To achieve the educational goal of practical classes and mastering the theoretical part of the subject it is necessary to **LEARN** and **ASKKNOWLEDGE** the answers **to the main theoretical questions** of the lesson's topic (ref. the list of the main theoretical questions) that will be checked by the teacher through an oral and/or written survey (correction, refinement, additional answers) during the main phase of the practical classes conduction.
2. **TO BE ABLE TO** solve theoretical, multiple choice test with explanation (to control the initial and final levels of knowledge), situational tasks proposed for mastering of the topic.

3.	**TO MASTER PRACTICAL SKILLS** on the topic: ● To take an active part in the demonstration by a teacher of skills: conducting, questioning, reviewing the patient and rules for determining the main indicators of the cardiovascular and respiratory systems (pulse, blood pressure, respiration) and providing first aid to patients with violations of these systems. ● Make a preliminary assessment of the patient's temperature homeostasis as a result of determining the body temperature and registering the temperature curves, demonstrating the skills of caring for patients with fever. ● Demonstrate skills in personal hygiene and care for patients who are seriously ill. ● Demonstrate ownership of the basic methods of intensive care. ● To know and fulfill the basic duties of junior medical personnel at all stages of the patient's stay in the departments and units of the therapeutic hospital (polyclinic, reception, in-patient department, transportation and sanitary-hygienic mode of stay in specialized departments, basic rules for nursing practice and implementation of medical appointments (medical, physiotherapeutic, perform the necessary medical manipulations, etc.), especially the cleaning of the premises of the therapeutic department, the filling of the medical documentation, etc.).
4.	**EXECUTE** obligatory tasks foreseen for student's independent work.
	Final phase:
1.	On the basis of mastering of theoretical knowledge and practical skills from the subject of practical training, to introduce the basic principles of nursing practice of adult age in the conditions of a general-therapy permanent establishment in the process of further training and professional activity.
2.	During practice, fill out a diary of practice.

The purpose and main tasks of the work

The goal is to achieve the main endpoints defined in the Master's Degree Program (MDP) (second level of high education), Discipline 22 «Health care» Specialty 222 «Medicine» which was established on the basis of educational qualification characteristics (EQC) and educational-professional training (EPT) of a medical specialty «**Nursing (practice). The structure and main tasks of care of patients in the general system of treatment of patients of therapeutic profile»**, which is made on the basis of the program for the nursing practice of therapeutic profile for higher medical institutions of education of Ukraine III-IV accreditation levels.

Main tasks:

1. Acquiring and improving the professional skills of a nurse.
2. Fixing in practice theoretical knowledge of basic disciplines.
3. Deepening and systematization of knowledge and skills in the nursing practice in accordance with the principles of medical ethics and deontology.

As a result of studying the discipline the 3rd year higher medical education applicants must:

TO KNOW: moral and deontological principles of a medical professional and principles of professional subordination in the therapeutic clinic.

TO BE ABLE: to organize the regime and nursing work with various therapeutic diseases, to perform necessary medical manipulations.

SELF-WORK of the 3rd year higher medical education applicants on the topic of the practical lesson:

- Transmission training for practical classes.
- Realization of practical skills of nursing manipulations.
- Work in in-patient departments as a nurse.
- Individual work.

ORGANIZATION OF WORK AND RESPONSIBILITIES OF NURSE IN MANIPULATIVE CABINET. SANITARY AND EPIDEMIOLOGICAL MODE OF MANIPULATIVE CABINET.
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MAIN QUESTIONS

As a result of studying the 3rd year higher medical education applicants must KNOW (the main theoretical questions):

• peculiarities of deontology in the work of the nurse;
• legislative and regulatory acts;
• the main responsibilities of the nurse;
• rules for completing the appointment sheet;
• the basic documentation of the manipulation room;
• rules for storage of medicines;
• rules for storage of medical instruments;
• rules for prescribing, accounting and storage of potent, narcotic and toxic substances;
• rules for preparing the manipulation table for work;
• peculiarities of administration of medicines to children and methods of their calculation;
• technique of subcutaneous injection;
• intramuscular injection technique;
• technique of intravenous injection;
• antibiotic dose calculation;

• infusion system filling technique;

• study the rules of disinfection, pre-sterilization cleaning of tools.

must BE ABLE (basic practical skills on the topic of the practical lesson):

• adhere to the rules of deontology in the work of the nurse;

• use legislative and regulatory acts;

• perform the essential duties of a manipulation nurse;

• correctly fill in the documentation, rules of its maintenance;

• store medicines properly;

• correctly fill out medical prescription sheets;

• properly store medical instruments;

• to prescribe, keep records of storage of potent, narcotic and toxic substances;

• prepare a manipulation table for work;

• perform subcutaneous injections;

• perform intramuscular injections;

• perform intravenous injections;

• calculate antibiotic doses;

• fill the system for infusion;

• disinfect and pre-sterilize the tools.

Test to control the INITIAL LEVEL OF KNOWLEDGE

1. What decrease in body temperature is called lytic?

   A. Cascade-like

   B. Wave-like

   C. Gradual

   D. Sudden

2. Which body system suffers in the first place when body temperature drops sharply?

A. Nervous

B. Cardiovascular

C. Digestive

D. Excretory

E. Endocrine

3. What is the purpose of cleaning the inguinal area from sweat before measuring the temperature with a mercury thermometer?

A. Ensuring the hygienic conditions of the procedure

B Caution the body against hypothermia

C. Ensuring high accuracy of measurement

D. In order to better hold the thermometer

4. What is the duration of measurement of body temperature in the armpit region?

A. up to 10 minutes

B. up to 5 minutes

C. up to 15 minutes

D. more than 20 minutes

5. What level of temperature characterizes the hyperpyretic reaction of the body?

A. 38.5 – 38 ^{0}C

B. 38 – 39 ^{0}C

C. 39.5 – 40 ^{0}C

D. more than 41 ^{0}C

Standarts of answers: 1 – C, 2 – B, 3 – C, 4 – A, 5 – D.

STRUCTURE AND CONTENT OF THE TOPIC

Topic relevance. A clear organization of the work of the nurse of the manipulation room, namely the correctness of the manipulations, knowledge of their methods, knowledge of the rules for breeding and counting antibacterial agents, methods of their introduction and maintaining medical documentation of manipulations in the room helps to increase the efficiency of work with patients and their quick recovery.

The main task of the nurse in the manipulation room is to perform the injections as prescribed by the doctor.

To perform her tasks, the nurse of the manipulation room must:

• perform procedures prescribed by doctors;

• make a blood sampling for biochemical, serological and other types of studies;

• help the doctor with a novocaine blockade;

• when performing manipulations, follow all the rules of asepsis and antiseptics;

• follow all instructions for the prevention of post-injection complications, anaphylactic shock, etc.;

• ensure the availability of sterile materials, drugs, systems, syringes;

• ensure strict accounting and storage of drugs from list A and B in special cabinets;

• keep special medical records (journal of accounting manipulations, analyzes, diary of nurses, etc.);

• safeguarding the proper sanitary-hygienic mode at the office;

• systematically improve her own skill level.

Organization of the manipulation cabinet

There should be several:

• for subcutaneous and intramuscular injections;

• for intravenous injection, blood sampling from a vein for research;

• for special medical and diagnostic procedures - pleural puncture, paracentesis;

• treatment rooms for gastric lavage, enemas.

The walls of the handling rooms must be tiled, the floor - tiled or linoleum. Area - not less than 15 m^2. The cabinet should have the following equipment:

- a cabinet for storing tools and medicines;
- bix with sterile syringes, needles, systems for fluid transfusion;
- sets of sterile instruments for paracentesis, pleural puncture;
- tripods for drip medications;
- racks for clean test tubes;
- refrigerator for storing sterile solutions, serums, vaccines;
- bactericidal lamp;
- several couches;
- electric suction pump.

Basic documentation for the handling room

- register of injections, blood substitutes and transfusions of proteins, blood sampling for biochemical studies, blood sampling for the determination of infectious diseases (HBsAg, RW);
- register of medical instruments, systems, vials with medicines;
- various instructions for disinfection of the room, sterilization of instruments, emergency care in case of anaphylactic shock, various anti-epidemic measures;
- antidote table.

Rules for storage and recording of drugs and medical instruments in the processing room

Depending on the pharmacological characteristics of the drugs, they are stored in different conditions.

Medicines with a limited shelf life (potions, tinctures, decoctions, vaccines, eye drops) are stored in the refrigerator.

The nurse should monitor the expiration date of the medicine. She should check the pharmacy labels, which indicate the expiration date of each medicine.

• infusions and decoctions are stored in the refrigerator for up to 3 days;
• potions - up to 5 days;
• eye drops - up to 3 days;
• penicillin solution for injection - up to 1 day;
• sterile solutions in vials - up to 10 days;
• tableted and powder forms - in special cabinets on the appropriate shelves;
• ampoule preparations - in metal cabinets with markings in accordance with their mechanism of action on the body.

For storage of **toxic and narcotic drugs (group A) and potent drugs (group B)**, special cabinets with appropriate compartments are used. On the inside of the door, which should be locked, place the list of medicines that are in the closet. The key is in the nurse's guard and is transferred to the next shift upon receipt. Data on the amount of used and unused narcotic and potent drugs is also transmitted - a registration book for these substances is stored at the nurse's post, which must be stitched and numbered. The book is signed by the head physician and sealed with the seal of a medical institution.

The rules for storing and recording medicines are regulated by order of the Ministry of Health of Ukraine No. 584 of December 16, 2003 "On Approving the Rules for the Storage and Quality Control of Medicines in Medical Institutions".

MANIPULATIONS ON SOFT TISSUES. INJECTION

The technique of performing subcutaneous, intramuscular, intravenous injection.

Items and equipment:

- sterile syringes of the required volume
- harness
- ethanol
- sterile cotton balls
- needles

- oilcloth

Sequencing:

Intradermal injection

Indications for use: with intradermal diagnostic tests (the presence of hypersensitivity to drugs), local anesthesia.

Place of intradermal injection:

- the outer surface of the shoulder and thigh
- subscapular region
- anterior abdominal wall

Technique - the use of a syringe with a thin injection needle with a diameter of 0.4 mm. The needle should be kept with a slit up, almost parallel to the skin, introduced to a shallow depth, so that with the introduction of drugs a papule in the form of a "lemon peel" is formed:

1. Treat the injection site with alcohol, making smears in one direction.
2. Stretch the skin with your left hand.
3. Only the end of the needle is inserted into the skin, holding it immediately upward, almost parallel to the surface of the forearm.
4. Transfer the left hand to the piston and, clicking on it, enter the medicine.
5. Pull the needle by pressing on the injection site with sterile cotton soaked in alcohol.

Intradermal injection technique

Subcutaneous injection

Indications for use: the introduction of local drugs (focus of inflammation, local anesthesia) and general action.

Equipment:

• treat the skin at the injection site sequentially with two cotton swabs moistened with alcohol: first a large area, then the injection site itself
• hold the skin with your left hand in the crease at the injection site
• insert the needle under the base of the skin fold at an angle of 45 ° to the skin with a cut to a depth of 2/3 of the length of the needle (index finger holds the needle cannula)
• transfer the left hand to the piston and inject the medicine
• remove the needle while continuing to hold it by the cannula
• press the injection site with sterile cotton wool moistened with alcohol

Intramuscular injection

Indications for use: the introduction of drugs.

Technique: the drug is administered in the upper outer quadrant of the gluteal region or in the anterior outer region of the thigh.

Necessary:
• determine the correct injection site
• treat with cotton wool moistened with alcohol, the upper outer sector of the buttocks, large area first, then directly at the injection site
• take the syringe with your right hand V finger on the needle cannula, the other fingers cover the syringe barrel
• insert the needle into the muscle, holding the syringe perpendicular to the skin
• transfer the left hand to the piston and inject the medicine
• remove the needle by pressing the injection site with sterile cotton soaked in alcohol

Intravenous injection

• put the oilcloth under the patient's elbow (for maximum extension of the limb in the elbow joint)
• apply a tourniquet in the middle third of the shoulder, while the pulse on the radial artery should not change

• tie a tourniquet (if the filling of the pulse on the radial artery worsens, it is worth loosening the tourniquet)
• ask the patient to squeeze and unclench his fist several times
• treat the elbow area with sterile cotton wool moistened with alcohol in the direction from the periphery to the center
• determine the filling of the vein (you need to find the most filled vein)
• take the syringe: the index finger fixes the needle cannula, the remaining fingers close the syringe barrel
• check the patency of the needle and the absence of air in the syringe (if there are a lot of small bubbles in the syringe, shake it, small bubbles merge into one large one, which is easily squeezed out through the needle)
• stretch the skin with the left hand at the elbow, slightly shifting it to the periphery to fix the vein
• pierce the skin without changing the position of the syringe in the hand, holding the needle with an incision, almost parallel to the skin
• insert the needle 1/3 of the length so that it is parallel to the vein
• slightly change the direction of the needle and carefully enter the vein
• continuing to hold it with his left hand
• make sure that the needle is in the vein by pulling the piston toward you (blood should appear in the syringe)
• untie the tourniquet with your left hand by pulling on one of the free ends
• press the piston with your left hand and, without changing the position of the syringe, slowly introduce the solution for processing
• press a cotton ball moistened with alcohol to the injection site and pull out the needle; ask the patient to bend the arm at the elbow for 5 minutes (leave cotton wool with alcohol at the injection site)

The procedure for applying a venous tourniquet

Technique for intravenous injection:

1 - puncture of a vein;

2 - control of the position of the needle;

3 - the tourniquet is removed;

4 - infusion of drugs

Calculation of the dose of soluble antibiotic

• determine the dose of antibiotic prescribed by your doctor

• determine the antibiotic content in the vial

• inject the solvent into the vial in proportion to the antibiotic content

• select the volume of the solution in which it is contained once, given that the antibiotic is evenly soluble in the solvent

Notes:

• the drug is dissolved immediately before use (extempore!);

• a single dose of the drug is prescribed by a doctor;

• many antibiotics are available in powder form in vials;

• factory-made vials of medicines are closed with a rubber or plastic stopper and closed with a metal cap;

• for parenteral administration, the drug is dissolved by adding 1-3 ml of water for injection, an isotonic sodium chloride solution or 0.5% novocaine solution to the contents of the vial.

The antibiotic dilution technique is 1 milliliter of solvent per 100,000 units of the active substance of the antibiotic or 0.1 grams, in children it is still possible to dilute 1 ml per 200,000 or 0.2 g:

- method 1: 1 - 1 ml of the dissolved preparation contains 100,000 units or 0.1 g of antibiotic. Thus, antibiotics are diluted in vials containing 500,000 units or 0.5 g of the drug or less;
- method 1: 2 - 1 ml of the dissolved preparation contains 200,000 units or 0.2 g of antibiotic; thus, antibiotics are diluted in vials that contain 500,000 units (0.5 g) of the drug or more.

The number of milliliters of the antibiotic solvent in the vials is determined by dividing the units or grams containing the vial by 100,000 (0.1) or 200,000 (0.2), respectively.

Rules for filling blood transfusion systems and intravenous infusion

Purpose: to be able to prepare a system for intravenous administration of drugs.

Items and equipment:

• sterile disposable system
• tourniquet
• tripod for mounting the system
• sterile rubber gloves
• alcohol, cotton wool
• adhesive plaster

Sequencing:

• check the tightness of the packaging and the period of use of the system
• open the central area of the metal cap of the drug vial with tweezers
• handle the bottle stopper with cotton wool moistened with alcohol (if the preparation is in a plastic bag, remove the special stopper from the original tube)
• open the package and get the system (work on the desktop)
• remove the cap from the airway needle (short needle with a short tube closed by a filter) and insert the needle into the bottle stopper

• attach the free end of the duct to the bottle using pharmaceutical rubber or adhesive tape

• close the clamp

Assembling and filling an intravenous drip drug system

• remove the cap from the needle at the short end of the system and insert this needle through the bottle cap

• turn the bottle over and mount it on a tripod

• set the dropper in a horizontal position and open the clamp

• slowly fill the dropper to half the volume

• close the clamp

• return the dropper to its original position (the filter should be completely immersed in liquid), open the clamp

• slowly fill the system (long tube) until air is completely displaced and a continuous flow of liquid appears

• check for air bubbles in the long tube of the system - the system is full

• place the injection needle in a sterile tray covered with a sterile cap, cotton balls moistened with alcohol, a sterile cloth

• prepare 2 strips of narrow (1 cm) adhesive tape 4-5 cm long

• perform venipuncture and fix the needle with a band-aid on the skin

• open the clamp, adjust the flow

Basic requirements for disinfection, pre-treatment of instruments before sterilization. Quality control of cleaning before sterilization of instruments for the presence of blood and detergents

Aseptic (asepticos) is a method of preventing infectious contamination of tissues and tools with microbes or viruses when performing medical and diagnostic procedures. To prepare for the injection of medical instruments, various sterilization methods are used, based on the disinfection of microbes, viruses and their metabolic products. The neutralization of these factors can be carried out by exposure to physical or chemical factors.

Sterilization - is the complete destruction of all types of microorganisms and their spores on the surface and inside of various objects, as well as in liquids and air.

Sterilization preparation:

• Mechanically - using a brush to remove blood residues, pieces of cotton wool. If necessary, the inner lumen is cleared by the mandren.

• Medical instruments are soaked in a disinfectant solution.

• Rinse with cold water and rinse with distilled water.

The presence of blood drops is checked using a **benzidine test**. A few drops of a solution with benzidine, acetic acid and hydrogen peroxide are passed through a needle, the appearance of green spots indicates poor-quality cleaners. Detergent residues are detected using a **1% phenolphthalein solution**. The appearance of a pink color indicates the remnants of detergents, which means that multiple washing of the tools is required.

Autoclaving - sterilization with steam heated to 115-130^0 C and pressure of 1.5 atmospheres. Duration 30-40 minutes. Sterilization control is carried out using sulfur, the melting point of which is 110-120° C, or benzene acid, which turns purple at 120° C.

Dry ovens - at 180^0 C 1:00. The tools are wrapped in kraft bags that are sealed on both sides.

Test to control the FINAL LEVEL OF KNOWLEDGE

1. What should a doctor do before giving the patient medicine?

   A. *Carefully read the appointment sheet.*

   B. *Check the name of the medicinal substance, its dose and method of application.*

C. *Make sure you have a patient whose last name is on the prescription sheet.*

2. What are the routes of parenteral drug administration?

A. Intradermally.

B. Subcutaneously

C. Intramuscularly

D. Intravenously

3. What should be advised to the patient before taking the drug?

About the exact name of the drug, the purpose of the drug, its duration, methods and time of taking the drug, the interaction of the drug with food, alcohol, drugs, side effects of the drug.

4. The patient is 18 years old. During thermometry, the thermometer does not held well in the armpit. Your actions?

Measure your oral temperature or measure rectally, or help hold the thermometer in your armpit.

5. The patient daily experiences daily temperature fluctuations within 1 °C in the temperature sheet, the high temperature lasts about 3 days. What type of fever are these changes typical for? Describe this type of fever.

Constant fever, daily fluctuations in temperature do not exceed 10 °C, high temperature lasts from several days or weeks.

6. The patient has a sharp decrease in body temperature, which is accompanied by sweating, sharp weakness and a decrease in blood pressure. In what state is this characteristic? What help is needed?

The crisis. Cover the body with a heating pad, lift the foot end of the bed, change bedding and bedding, give strong tea.

7. The patient is prescribed drops. The nurse, referring to a small amount of time, poured a small amount of medicine from the bottle into a teaspoon and gave the patient a drink. What is the nurse's mistake?

The nurse made a gross mistake, the drops must be strictly dispensed with a pipette.

8. In the afternoon, before the patient took the medicine, he drew the attention of the nurse to the fact that after taking the medicine in the morning, an itchy rash and a sensation of heat appeared on the skin. What should the nurse think about and how should she act in this situation?

Do not give medication to the patient; consult a doctor immediately.

9. While the medicine is distributed to patients, one of the bottles does not have a label. What should the nurse do in this case?

Medicines that are in a bottle without a label should be disposed of.

10. After instillation of drops in the eyes, the patient felt severe itching and the appearance of itching in the eyes. The nurse who performed the manipulations found that a solution of boric alcohol was accidentally instilled into the patient. What is the tactics of a nurse?

Rinse your eyes immediately with a stream of water and inform your doctor. Before dropping drops into the eyes, the nurse should check the label on the prescription bottle.

SELF-WORK
of the 3rd year higher medical education applicants
on the topic of the practical lesson

• basic documentation for the handling room;
• rules for drug storage;
• storage rules for medical instruments;
• techniques of subcutaneous, intramuscular, intravenous injections
• calculation of the dose of the antibiotic;
• methodology for filling the system for infusion;
• learn the rules of disinfection, pretreatment of instruments before sterilization

Recommended literature

Basic:

1. Buppert Carolyn. Jones & Bartlett Learning : Nurse Practitioner's Legal and Business Practice Guide. 6th edition. – 2017. – 516 p.
2. Care for patients (practice) : a textbook for students of higher medical educational institutions of the III-IV accreditation level / count. actors; ed. O. N. Kovaleva, V. N Forestry, R. S. Shevchenko, T. V. Frolova. – K .: VSI Medicine, 2014. – 432 p.
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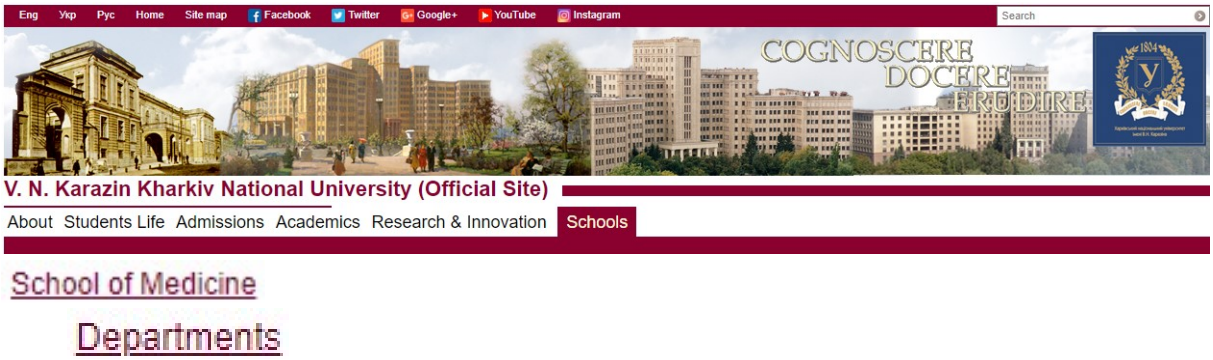
Annex 1

Official site: http://www.univer.kharkov.ua/en/departments



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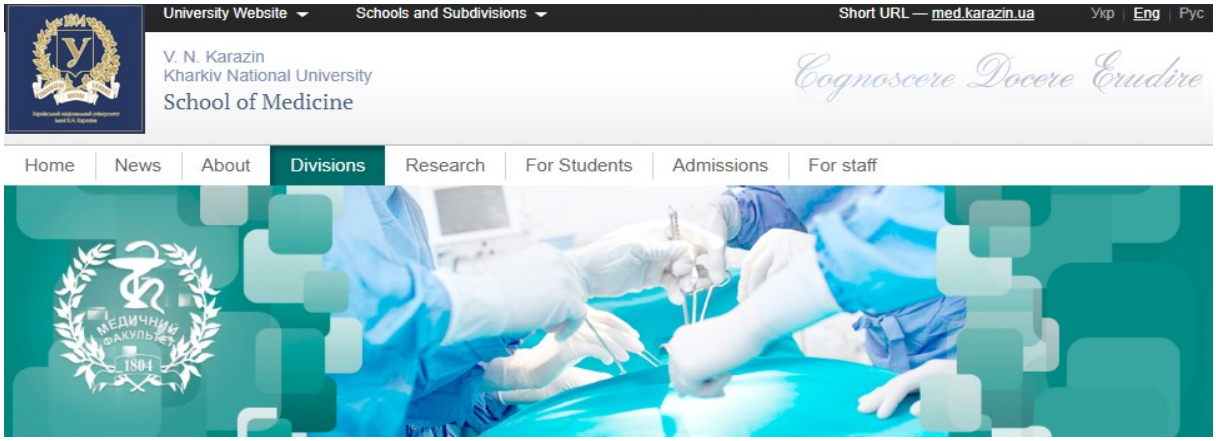

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Annex 2

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Annex 3

Propaedeutics of Internal Medicine and Phy. Rehab. Dep V....

The official Facebook group of the **Department of propaedeutics of internal medicine and physical rehabilitation of the V. N. Karazin Kharkiv national university.**
News, announcements, useful information for students.

How to get there?
The base of the department is in a beautiful, quite place, far from the bustle of the big city.
Our address: Academika Kurchatova Avenue, 29.
You can get to this place from the city center, using the 296e bus (from «Derjprom» metro station), go to the "Church" stop, and continue to walk about 600 meters.
You are on the spot!

Instagram

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YouTube

Марія Бринза
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Signs and symptoms of urinary system disorders

Syndromes in diseases of blood system

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Olena S. Makharynska – PhD, Associate professor
Pavlo V. Matiukhin – PhD, Associate professor
Nataliia E. Piriatinska – PhD, Associate professor
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Responsible for translation author — Nataliia E. Piriatinska

ORGANIZATION OF WORK AND RESPONSIBILITIES OF NURSE IN MANIPULATIVE CABINET. SANITARY AND EPIDEMIOLOGICAL MODE OF MANIPULATIVE CABINET. METHODS AND TECHNIQUES OF TAKING A COMPLETE BLOOD COUNT, BLOOD GLUCOSE ANALYSIS, BIOCHEMICAL AND BACTERIOLOGICAL BLOOD STUDIES. TECHNIQUES OF SUBCUTANEOUS, INTRAMUSCULAR, INTRAVENOUS INJECTIONS. FEATURES OF ANTIBACTERIAL MEDICINES ADMINISTRATION

Methodological recommendations for independent preparation for practical classes for the 3rd year higher medical education applicants in the discipline «Nursing practice. The main duties and professional activities of medical nurse in therapeutic department»

Коректор

Electronic publication on official website of V. N. Karazin Kharkiv national university — page of the Department of propedeutics of internal medicine and physical rehabilitation of the School of medicine, section "Educational materials for students / Guidelines"