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

RESPONSIBILITIES OF A NURSE TO PROVIDE A DIAGNOSTIC PROCESS IN THE THERAPEUTIC HOSPITAL. BASIC RULES OF PATIENT PREPARATION FOR GASTROSCOPY, RECTOROMANOSCOPY, COLONOSCOPY, ABDOMEN ULTRASOUND EXAMINATION. PREPARATION AND CARRYING OUT THE GASTRIC AND DUODENAL INTUBATION. GASTRIC LAVAGE

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»

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R45 Responsibilities of a nurse to provide a diagnostic process in the therapeutic hospital. Basic rules of patient preparation for gastroscopy, rectoromanoscopy, colonoscopy, abdomen ultrasound examination. Preparation and carrying out the gastric and duodenal intubation. Gastric lavage : 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» : translation from Ukrainian language / edited by : Mariia S. Brynza, Ella V. Karnaukh, Olena S. Makharynska and others. – Kharkiv : V. N. Karazin KhNU, 2020. – 36 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.

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MAIN QUESTIONS

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

1. Moral and ethical principles of nursing practice in Ukraine.
2. The main duties and professional activities of medical nurse in therapeutic department.
3. Responsibilities and actions of the nursing staff in therapeutic department.
4. To know the procedure of rendering assistance to patients at urgent conditions.
5. Nursing documentation and recording systems of nursing care.

<u>must BE ABLE</u> (basic practical skills on the topic of the practical lesson):

1. Conduct a survey and sanitary review of hospitalized patients.
2. Explain to the patient the rules and prepare for the diagnostic tests.
3. Conduct subcutaneous, intramuscular and intravenous injections and infusions.
4. To provide assistance of patients with urgent conditions.
5. Fill in the patient medical records in the department (passport information), record provided inspections and manipulations.

Test to control the INITIAL LEVEL OF KNOWLEDGE

1. Which department does not contain the large intestine:

    A. The empty gut.

    B. Club gut.

    C. The cecum.

    D. Colon.

    E. The rectum.

2. The length of the large intestine is:

    A. 60-80 cm.

    B. 80-100cm.

    C. 130-150 cm.

    D. 150-170 cm.

    E. 170-185 cm.

3. What features are characteristic of the large intestine:

    A. Highlight.

    B. Synthesis of vitamins.

    C. Protective.

    D. It is digestible.

    E. Everything listed is correct.

4. What is the number of segments of the liver:

    A. 6.

    B. 7.

    C. 8.

    D. 5.

    E. 4.

5. The average size of the gall bladder on an empty stomach in length is:

    A. 2-4 cm.

    B. 6-8 cm.

C. 4-6 cm.

D. 8-10 cm.

E. 1.5-2 cm.

6. How many sphincters contains the rectum:

A. 1.

B. 2.

C. 3.

D. 4.

E. 5.

7. Which of the departments is not part of the stomach:

A. Cardiac.

B. Antrum.

C. Pyloric.

D. Rim.

E. Little curvature.

8. At the level of which vertebrae is the projection of the place of transition of the esophagus into the stomach:

A. 10-11 lumbar.

B. 1-2 lumbar.

C. 8-9 lumbar.

D. 2-3 lumbar.

E. 12th lumbar - 1 lumbar.

9. Arrangement of a ton of intestines:

A. epigastric.

B. mesogastric.

C. hypogastra.

D. right iliac region.

E. left iliac region.

10. How many anatomical constrictions does the esophagus have:

A. 1.

B. 2.

C. 3.

D. 4.

E. has none

Standarts of answers: 1-A, B; 2-C, 3-E, 4-C, 5-B, 6-C, 7-D, 8-A, 9-B, 10-C.

STRUCTURE AND CONTENT OF THE TOPIC

Topic relevance. To establish a correct diagnosis, a clear diagnostic examination of the patient's health is required. The average medical staff, together with the doctor, prepares for the examination of the patient and directly participates in diagnostic procedures. The accuracy and correctness of the nurse's actions depends on the effectiveness of the doctor's diagnostic work and the speed of diagnosing the disease of the particular patient.

Preparation of the patient for gastroscopy

Educational goal: to be able to prepare the necessary equipment and gastroscope before examination; to carry out general preparation and anesthesia of the patient; to assist the doctor during the procedure; clean and disinfect the gastroscope after use.

Educational goal: to realize that successful gastroduodenoscopy depends on the professional training of the nurse.

Initial knowledge: know the features of modern endoscopes; diagnostic and therapeutic value of gastroduodenoscopy.

Equipment:

1) fibrogastroscope and its accessories;

2) gastroscopic table;

3) a 2% solution of trimecain;

4) 10% formalin solution;

5) slides;

6) sterile foam sponges, soap, water;

7) washing solution;

8) 70% solution of ethyl alcohol;

9) 0.5% alcohol solution of chlorhexidine bigluconate;

10) gauze napkins, rubber gloves;

11) in the endoscopic office there must be a first aid kit with cardiovascular agents, drugs that excite the respiratory center and desensitizing drugs.

Design features of modern endoscopes. Modern endoscopes are based on fiber optics. The flexibility and high quality of endoscopes have provided endoscopic methods with the safety and efficacy of research and widespread clinical use.

The design of the fibroscope includes a controlled distal head, a flexible middle part, a proximal control unit and an eyepiece, a flexible cord-guide to transmit light from the source to the fibroscope. A distinctive feature of modern fibroscopes is the ability to take pictures with high-quality illustrations with the help of both cameras and film cameras.

Diagnostic and therapeutic value of gastroduodenoscopy. Gastroduodenoscopy is an endoscopic examination of the esophagus, stomach, and duodenum. It allows to identify sources of acute gastroduodenal bleeding, to diagnose peptic ulcer or neoplasm of the stomach, and also allows to take pieces of mucous membrane for histological examination. With the help of endoscopes polyps are removed, blood vessels are coagulated, medicines are administered.

Gastroduodenoscopy is contraindicated in case of severe cardiopulmonary

insufficiency, stage III hypertension, aortic aneurysm, hemophilia, acute respiratory infections.

The sequence of actions during the execution of procedures

General patient preparation and anesthesia

1. Prepare the patient in advance for the procedure. The patient should understand the nature of the sensations that arise during the study.

2. Warn the patient to have an easy dinner at 18.00 and come to the endoscopic office on an empty stomach. On the day of the examination, the patient should not smoke, drink or take medication.

3. For examination, the patient should bring a towel, which is placed under the head, and then used to wipe the patient's face, as well as the gastroscope at the time of its removal.

4. Warn the patient that during the procedure he will not be able to talk, swallow saliva.

5. If your doctor prescribes it, carry out premedication 15 to 20 minutes before the study: 0.5 ml of 0.1% solution of atropine sulfate is administered subcutaneously, 2 ml of 50% analgin solution is administered intramuscularly. The feasibility of pre-administration of painkillers, method and dose is decided individually by the doctor.

6. Immediately before the procedure, ask the patient to remove the dentures if they have dentures.

7. Anesthetize the oral mucosa with a 2% trimecain solution by irrigation.

8. Put the patient on the left side with the left leg extended, bend the right leg in the knee and hip joints. Put a roller under the patient's head. Invite the patient to put his hands in such a way that they do not interfere with the doctor's examination. The patient should lie still, breathe evenly, do not swallow saliva and do not talk.

9. Wear rubber gloves.

Nurse's assistance during gastroscopy. The nurse has a wide range of responsibilities:

1. She monitors the general condition of the patient, assesses skin color, pulse rate, correct position of the patient on the table.

2. Participates in the research:

a) fix the patient's head in such a position that the pharynx and esophagus form a straight line;

b) monitor the position of the rotary blocker (loser);

c) palpate the abdomen for excretion in the field of view and in the convenient position of the relevant departments of the stomach;

d) helps the doctor insert the endoscope and guide it into the stomach and into the duodenum;

e) moves the endoscope up and down at the doctor's direction, holding on to its flexible part;

e) fixes the endoscope in the desired position.

3. In addition, the nurse is involved in biopsy, removal of neoplasms, and treatment interventions.

After gastroduodenoscopy, the patient should not take fluid for 1 - 2 h, and if biopsy was performed, he or she cannot eat hot food for 24 h.

The gastroscope is disinfected after use.

Preparation and carrying out of gastric probing

Educational goal: be able to insert a thin probe into the stomach; to receive gastric contents by the method of Leporesky; to receive gastric contents by the method of Veretenov - Novikov - Myasoedov; obtain gastric contents by parenteral stimuli; carry out a sound-free study of the secretory function of the stomach; disinfect the gastric tube.

Educational goal: to understand the importance of psychological preparation of the patient for the procedure and the value of the study of gastric

juice.

Initial knowledge: Know the indications and contraindications to the study of gastric juice by the probe method; how to use enteral and parenteral stimuli; indicators of the study of gastric juice is normal.

Equipment:

1) a sterile thin gastric tube;

2) a sterile syringe with a capacity of 5 - 10 ml;

3) a tripod with test tubes;

4) kidney-shaped tray;

5) towel, plastic apron, rubber gloves;

6) clamp;

7) dishes and substances that are enteral stimuli: meat broth, 4% decoction of cabbage, 5% solution of ethyl alcohol;

8) substances that are parenteral stimuli: 0.1% solution of histamine in ampoules, 0.025% solution of pentagastrin in ampoules, insulin;

9) 1% solution of dimedrol in ampoules;

10) Acidotest tablets.

Studies of gastric juice are performed to determine the secretory (acid-forming) and motor (evacuation) functions of the stomach.

Indications for gastric sensing are diseases of the gastric mucosa.

Contraindications are:

- recent gastrointestinal bleeding;
- angina;
- stage III hypertension;
- esophageal veins enlargement;
- exacerbation of gastritis, peptic ulcer and duodenal ulcer.

As enteral stimuli use:

a) meat broth (1 kg of lean beef is boiled in 2 liters of water). The study requires 300 ml;

b) 4% broth of dried cabbage leaves - 300 ml;

C) 5% solution of ethyl alcohol - 300 ml.

Parenteral stimuli include:

a) 0,1% solution of histamine in ampoules at the rate of 0.08 mg per 10 kg of body weight of the patient, but the maximum amount of the preparation should not exceed 0.5 ml. After administration of histamine, patients may experience dizziness, tachycardia, burning sensation, redness of the skin. To reduce the severity of this reaction, 30 minutes before the introduction of the drug is administered antihistamine - 1 ml of 1% solution of dimedrol;

b) 0,025% solution of pentagastrin in ampoules at the rate of OD ml per 10 kg of body weight of the patient;

c) insulin at the rate of 2 units per 10 kg of body weight of the patient. Normal indices of the study of gastric juice. Normally, fasting in the stomach contains up to 50 ml of secret. The total acidity of 10 UNITS. Free hydrochloric acid is absent in many people.

After the introduction of the enteral stimulus total acidity can be from 40 to 60 IU, free acidity is from 20 to 40 IU.

Indicators of acidity of gastric contents after introduction of parenteral stimuli in healthy people are higher, than when using enteral.

The amount of enzyme (pepsin) is 40 - 60 IU.

The sequence of actions during the execution of procedures

Insertion of a thin probe into the stomach

1. Make a referral to the laboratory. Inform the patient that on the eve of the procedure in the evening he did not consume spicy rough food, that the study is conducted in the morning on an empty stomach and the patient should not smoke before.

2. Perform the procedure in rubber gloves and apron.

3. Explain the procedure to the patient and teach him to breathe deeply

with his nose.

4. Seat the patient correctly and comfortably: he should lean snugly against the back of the chair and slightly tilt his head forward.

5. Cover the neck and chest of the patient with a cloth and give him or her a tray (to collect the leaking saliva).

6. If necessary, have the patient remove the dentures.

7. Measure the patient's distance from the navel to the incisors, that is, the distance to which he needs to insert the probe.

8. With clean hands, take the probe, the wet end of which is moistened with warm water, and cover the free end with a clamp.

9. With the right hand, take the probe 10 - 15 cm away from the blind end and hold the free end with the left one.

10. Put the blind end of the probe on the root of the patient's tongue and ask him to do some swallowing movements and breathe deeply with his nose, while at this time push the probe into his throat. At emergence of calls for vomiting the patient should clamp lips with a probe and breathe deeply through a nose.

11. With each swallowing movement, move the probe up the esophagus to the appropriate mark on the probe. The patient should swallow the probe slowly so that it does not curl.

The further procedure for the procedure depends on the type of stimulus.

Obtaining gastric contents by the method of Leporsky

1. Absorb the gastric contents completely (1 serving).

2. Insert 300 ml of the enteric stimulator heated to 38 ° C through the probe.

3. After 10 minutes, suck out 10 ml of gastric contents (2nd serving).

4. After 15 minutes, suck out all the rest of the enteral stimuli (3rd portion).

5. For 1 hour, suck out gastric contents (4, 5, 6, 7 portions) every 15

minutes.

6. After the end of the probe, remove the probe from the stomach.

7. Send all 7 servings of gastric contents to the laboratory (the tubes should be numbered and sealed with a rubber stopper).

Remember! Each time after suction of the gastric contents the probe should be closed with a clamp.

Obtaining Gastric Content
by the method of Veretenov - Novikov – Myasoedov

1. With a syringe, suck out the stomach contents on an empty stomach (1st serving).

2. For 1 hour, suck out gastric contents (2nd, 3rd, 4th, 5th portions) every 15 minutes.

3. Enter the enteral stimulus through the probe.

4. After 10 minutes, remove 10 ml of gastric contents (6th portion).

5. After 15 minutes, suck out the entire remainder of the enteral stimulus (7th portion).

6. For 1 hour, suck out gastric contents (8, 9, 10, 11 servings) every 15 minutes. When the probe is complete, remove the probe from the stomach.

7. Send all 11 servings to the laboratory (the tubes should be numbered and sealed with a rubber stopper).

Obtaining Gastric Content Using Parenteral Irritant (Histamine)

1. Soak the gastric contents on an empty stomach (1st serving).

2. For 1 hour, suck out gastric contents (2nd, 3rd, 4th, 5th portions) every 15 minutes.

3. After taking the 3rd portion, inject the patient with subcutaneous 1 ml of 1% solution of diphenhydramine.

4. After taking the 5th portion, administer to the patient a subcutaneous 0.1% histamine solution at the rate of 0.08 ml per 10 kg of body weight of the

patient.

5. For 1 hour, aspirate the gastric contents every 15 minutes (6th, 7th, 8th, 9th portions). When the probe is complete, remove the probe from the stomach.

6. Send all 9 servings to the laboratory (test tubes should be numbered and sealed with a rubber stopper).

Remember! The study of gastric juice using histamine can only be carried out in a hospital setting in order to provide immediate medical attention to the patient in the event of an allergic reaction.

Histamine-insulin technique for the study of gastric contents

The technique is used in surgical wards to determine the type of surgery for gastric ulcer).

1. Suck the contents of the stomach from the patient on an empty stomach.

2. After 15 minutes, remove the 2nd portion of gastric contents.

3. After 3 minutes, remove the 3rd portion of gastric contents. Subcutaneously administer 1 ml of 1% dimedrol solution.

4. After 15 minutes, remove the 4th portion of gastric contents. Subcutaneously administer histamine at the rate of 0.08 ml per 10 kg of body weight of the patient.

5. Suck 4 portions of gastric contents for 1 hour every 15 minutes.

After the 8th portion, subcutaneously insulin at the rate of 2 IU per 10 kg body weight of the patient.

6. Suck 4 portions of gastric contents (9, 10, 11, 12 portions) for 1 hour.

7. Send all 12 servings to the laboratory.

Remember! In the study of gastric secretion using insulin in some cases, hypoglycemia may be observed. The patient has a feeling of hunger, chills, anxiety, general weakness, sweating. In this case, the study is stopped, the patient is allowed to drink half a cup of sweet tea or intravenously injected with 20 ml of 40% glucose solution.

The appearance of a small amount of blood in the gastric contents in the form of veins may be associated with damage to small vessels of the gastric mucosa. If there is a large amount of blood, stop the suction of gastric juice. Carefully pull out the probe, help the patient lie down, place an ice bubble on the adrenal region and call a doctor immediately.

A special approach should be in the study of gastric content in the elderly. If necessary, remove dentures from them, carefully insert the probe into the esophagus as it may be deformed through a modified aortic arch. Carelessness with the introduction of the probe can lead to perforation, injury to the mucous membrane, bleeding.

Preparation and conduct of duodenal sounding

Educational goal: to be able to enter the duodenal probe into the duodenum; get portions of bile A, B, C; to assist in case of possible complication.

Educational goal: to understand the importance of careful preparation of the patient for duodenal sounding.

Initial knowledge: Know the purpose of duodenal sensing; contraindications to duodenal sounding; how to prepare the patient for duodenal sounding.

Equipment:

1) a sterile duodenal probe;

2) test tube tripod;

3) tray;

4) sterile syringe with a capacity of 10 ml;

5) enteral stimuli: 33% solution of magnesium sulfate - 50 ml; 40% glucose solution - 50 ml; 40% solution of xylitol or sorbitol - 50 ml; olive or corn oil - 50 ml; two raw yolks of chicken eggs;

6) pituitrin - 5 units (parenteral stimulus);

7) 10% solution of calcium chloride in ampoules;

8) hot water heater;

9) a blanket roller or pillow;

10) towel, plastic apron, rubber gloves;

11) oilcloth;

12) low stool.

Indications for duodenal sounding:

1.Diagnosis - obtaining bile to detect elements of inflammation, sand, parasites and more.

2. Treatment - evacuation of bile, prevention and elimination of its stagnation.

Contraindications for duodenal sounding: acute cholecystitis, exacerbation of gastric ulcer, duodenum, narrowing of the esophagus caused by tumor or scarring, varicose veins of the esophagus.

Preparation of the patient for duodenal sounding

2 to 3 days before the examination, it is necessary to remove from the diet of the patient products that lead to flatulence: cabbage, potatoes, milk, legumes, etc. The day before 18:00 is a light dinner. In the evening he is given atropine in drops (10 drops of 0.1% solution of atropine sulfate). Duodenal sounding is performed on an empty stomach.

The sequence of actions during the procedure

The introduction of the duodenal probe into the duodenum.

1. Perform the procedure in rubber gloves and apron.

2. Explain to the patient the necessity and sequence of the procedure in a lucid form.

3. Determine the distance to which the probe should be inserted. In the standing position, measure the patient's distance from the navel to the incisors (this value corresponds to the first mark on the probe) and add the distance from

the incisors to the ear or the length of the palm (corresponds to the second mark on the probe).

4. Put the patient on the couch.

5. With clean hands, take a sterile, water-moistened probe. With the right hand - at a distance of 10 - 15 cm from the oil, with the left - support the free end of the probe.

6. Enter the oil at the root of the tongue, offer the patient to take a few swallowing movements and breathe deeply, and at this time push the probe into the throat. If there are urges to vomit, the patient should stop swallowing, lips clamp the probe and breathe deeply through the nose.

7. The patient swallows the probe slowly so that it does not curl.

8. When the probe reaches the stomach (this corresponds to the first mark on the probe), check its position by aspirating the contents of the syringe. At the same time, the syringe receives light content of the stomach with acid reaction (moistened litmus paper turns red).

9. Then the patient is asked to slowly walk around the room, gradually within 30 minutes to swallow the probe to the second mark. The probe oil must pass through the gastric collar.

10. Determine the location of the probe by means of an air thrust. Put the patient on his back and use a syringe to inject 10 cm3 of air. If the patient feels a shock in the right hypochondrium, it means that the oil is in the duodenum. If the patient experiences a shock in the adrenal region, it means that the probe has curled up and is in the stomach. In this case, pull the probe to the first mark and ask the patient to gradually re-swallow the probe to the second mark.

11. Put the patient on the right side on the couch without a pillow, place a towel under his head, place a roller under the pelvis, and under the right hypochondrium a hot heater.

12. Insert a test tube stand, tray, and syringe below the position of the patient on a low stool or special stand.

13. In the case of oil entering the duodenum, a yellow liquid is released from the probe independently. Dip the outer end of the probe into a test tube. The first portions of bile are cloudy as they contain impurities of gastric contents. Then a clear liquid of a light yellow color of the alkaline reaction is released. For 20-30 minutes, about 15-40 ml of the first portion (A) of the contents of the duodenum is released.

If you are sure that the probe is in the duodenum and bile is not excreted, then inject subcutaneous 1 ml of 0.1% solution of atropine sulfate, which contributes to the opening of the sphincter of the common bile duct.

14. To obtain a portion of B (gallbladder) through the probe, gradually, using a syringe cylinder, enter one of the enteral stimuli (50 ml of 33% magnesium sulfate solution heated to 38 ° C, olive or corn oil, 40% glucose or xylitol solution) and apply a clamp, the patient while lying on his back for 10 minutes.

The irritant may be 5 PIUs of pituitrin administered intramuscularly.

15. Then put the patient again on the right side, open the probe, and from it the more thick and viscous bile of dark olive color begins to come. Normally, it is released in the amount of 50 - 60 ml for 20 - 30 minutes.

In the case of congestive events in the gallbladder, portion B may increase and, conversely, in the case of chronic cholecystitis, the amount of bile of this portion may decrease.

16. After the second portion appears liver bile - portion C. It is a light lemon color, transparent, without impurities.

17. After receiving the third portion, pull out the probe.

18. Mark the tubes with bile (A, B, C) and send to the laboratory as soon as possible due to the continued action of enzymes that destroy cellular elements. Send the duodenal contents to the laboratory in a special box - container.

Remember!

1. If there is blood in the duodenal content of the probe, stop and tell your doctor.

2. The solution of magnesium sulfate not all patients perceive well: in some there is a pain in the right hypochondrium, in others - diarrhea. In this case, 33% of the magnesium sulfate solution should be replaced with another enteral stimulus. Magnesium sulphate solution is also not recommended for patients with colitis with a tendency to diarrhea.

3. If it is not possible to send portions of bile to the laboratory, add to each tube 5 - 8 drops of 10% formalin solution, which stops the enzymes.

4. If the first sounding did not give positive results, before the second sounding within three days the patient takes once a night 6 drops of 0.1% solution of atropine sulfate as prescribed by a doctor.

Assist in case of possible complication. Concentrated (33%) solution of magnesium sulfate not only causes emptying of the gall bladder, but also greatly irritates the centers of the autonomic nervous system, resulting in patients may experience weakness, dizziness, palpitations, lower blood pressure. In this case, the patient is given intravenously slowly 10 ml of a 10% solution of calcium chloride, which is an antagonist of magnesium sulfate.

Rules of preparation of the patient for carrying out a rectromanoscopy

Educational goal: to be able to prepare the patient for a rectomanoscopy; to provide the necessary position to the patient during the procedure.

Educational goal: to understand the importance of thorough preparation of the patient for the procedure.

Initial knowledge: Know the indications and contraindications for Rectromanoscopy.

Equipment:

1) a rectomanoscope;

2) Vaseline;

3) Esmarch's mug;

4) rubber gloves.

Indications for Rectromanoscopy

discharge from the rectum of pus, mucus, blood; the presence of pain in the rectum, persistent constipation, especially in the elderly; the need to take a piece of the mucous membrane of the colon for histological examination on the eve of rectal medical procedures (intestinal shower, mud swabs).

Contraindications for Rectromanoscopy:

severe general condition of the patient, acute and purulent processes in the area of the anal sphincter, scarring of the rectum.

The sequence of actions during the preparation of the patient for the procedure

1. In the case of constipation, patient preparation begins a few days before the study. Apply 50 g of castor oil or olive oil daily and put cleansing enemas on the eve of the evening and in the morning until clear water is released. The last enema is done in the morning 2 hours before the examination.

2. If the faeces are normal, then one enema is sufficient on the eve of the evening and in the morning 2 hours before the examination.

The position of the patient during the procedure. The most convenient position for the introduction of a rectomanoscope is the patient's knee-elbow: the patient kneels on a dressing table so that his feet hang over his edge and his elbows or shoulders rest against the table. The second possible position of the patient - lying on the right side with a slightly raised pelvis.

After examination, the Recto-Romanoscope is disassembled, disinfected, and disassembled. After endoscopic examination, biopsy forceps and loops are also disinfected and stored in hanging position on special shelves or sterilizers.

Gastric lavage technique

Indication:

Poisoning with medicines, substandard foods, mushrooms.

Delayed food in the stomach due to pylorus stenosis and some diseases.

It should be weighed especially in the 1st hour after oral administration of a significant amount of poisonous substance in the solid state (high efficiency). You should not routinely perform every person suspected of poisoning.

Contraindications:

Poisoning with caustic substances (threat of perforation); poisoning by volatile poisons, hydrocarbons, detergents (high risk of aspiration); significant risk of gastrointestinal bleeding; loss of consciousness (if the patient is not intubated); significant psychomotor excitation, lack of consent in the patient, who is conscious.

Complication:

Aspiration pneumonia, perforation of the gastrointestinal or pharynx, hypoxemia, arrhythmia, impaired electro-electrolyte metabolism.

Patient preparation

If the patient is unconscious, the doctor first performs endotracheal intubation. In this case, the patient is laid aside.

If the patient is conscious, gastric lavage can be performed in a sitting position.

Software:

Thick probe (30 F adults), gel lubricated (eg with lidocaine), 1-1.5 liter funnel, pitcher, wash basin (basin), water capacity (10-12 liters) 20-22°C, tongue holder, mouth expander, oilcloth, rubber gloves.

The doctor performs the procedure and the nurse prepares the necessary equipment and helps the doctor.

Machinery:

1. The patient is put on an apron, fixing his hands in such a position that

he did not interfere with the procedure. In between his feet are a tank for flushing water. If there are dentures, they are removed. Wearing an apron and gloves, the doctor and nurse stand to the right of the patient, close the container with clean water. Measuring the distance to which the probe (from the navel to the incisors) should be inserted, its end is placed on the root of the tongue. They ask the patient to make several swallowing movements and at this time quickly move the probe down the esophagus. When the probe enters the respiratory tract, the patient starts coughing, bluing and losing voice. In this case, the probe is immediately removed and after a few minutes the procedure is continued.

2. Slowly pour 1 liter of water through the funnel, and before the water disappears from the funnel, lower it above the bucket, below the level of the stomach, which will return the infused water (siphon phenomenon); Repeat this repeatedly until clean water is obtained.

3. The last portion of water with added activated charcoal should be weighed if the laryngeal reflexes have persisted or intubated since receiving the poisonous substance and intubated, and have received a potentially toxic dose of the poisonous substance that the charcoal adsorbs. Introduction of activated carbon is justified poisoning, in particular, β-blockers, calcium channel blockers, phenobarbital, cardiac glycosides, carbamazepine and other antiepileptic drugs, colchicine, antidepressants and antipsychotic drugs, antihypertensive drugs, salicylates, methotrexate, opioids, acetaminophen, pesticides, substances biological origin, theophylline. Contraindications: the same as in the case of gastric lavage, in addition - poisoning by metals (including lithium and iron) and alcohols, obstruction or perforation of the gastrointestinal tract. Single dose in adults and adolescents: 25–100 g [1 g / kg]. Repeated doses (0.25-0.5 g / kg every 2-4 h) can be used in people who have taken a life-threatening dose of the drug, including quinine, dapsone, phenobarbital, carbamazepine or theophylline; the condition of using this method is preserved intestinal peristalsis.

Preparation of the patient for ultrasound examination of abdominal organs

Diagnosis of ultrasound is by far one of the most effective and safest methods of diagnosing internal organs. This method of diagnosis allows to obtain accurate information about the size, location and condition of the internal organs, as well as any abnormalities and possible diseases.

People who have suffered at least once gastrointestinal diseases, it is recommended to undergo ultrasound diagnostics once a year for preventive purposes as the safest and most reliable.

Indications for ultrasound ultrasound:

sharp abdominal pain;

suspected appendicitis;

aortic aneurysm;

enlargement of the liver or spleen;

cholelithiasis or kidney-stone disease;

feeling of heaviness or pain in the right hypochondrium;

constant feeling of bitterness in the mouth;

prevention of diseases.

It is recommended for patients with the following diseases:

cholelithiasis;

cholecystitis;

pancreatic cyst, pancreas, liver;

hemangioma; hepatitis.

Preparation of abdominal organs and vessels for ultrasound

Normal preparation of the patient for examination of the abdominal organs and retroperitoneal space involves fasting examination with restriction of nutrition the day before. That is, 1-2 days before the study, exclude products that cause bloating, carbonated drinks. The patient is advised to have a light dinner

on the eve of the study no later than 19.00 and arrive on an ultrasound in the morning on an ultrasound. If the study is scheduled at 2 in the morning, a light breakfast is allowed no later than 6-8 hours before the study. However, these measures do not always lead to the desired result, and in some cases can provoke an increase in gas production in the intestine. For the treatment of flatulence syndrome are used means that normalize the intestinal peristalsis and accelerate the evacuation of gases from it.

No ultrasound before smoking: Smoking causes a contraction of the gallbladder, which can mislead the doctor and lead to a wrong diagnosis.

Test to control the FINAL LEVEL OF KNOWLEDGE

1. What are the contraindications for rectromanoscopy:
   A. rectal loss.
   B. bleeding from the intestine.
   C. excretion of mucus with feces.
   D. excretion of blood with feces.
   E. contraindications are absent.
2.Preparing the patient on the day of fibrogastroscopy:
   A. Increase in fluid intake.
   B. limitation of fluid consumption.
   C.conducting cleansing enema.
   D. on an empty stomach.
   E.conducting microclysters.
3.Preparation for ultrasound of the patient's bladder contains:
   A.Standard.
   B. staging of cleansing enema.
   C. release of the bladder.
   D. fluid restriction.
   E.filling of the bladder.

4. Indications for gastric lavage are all but:

A. Alcohol poisoning.

B. dehydration.

C. food poisoning.

D. drug poisoning.

E. mushroom poisoning.

5. Contraindications for gastric lavage are everything except:

A. mushroom poisoning.

B. gastric bleeding.

C. esophageal burns.

D. Acute abdomen.

E. myocardial infarction.

6. Water temperature for gastric lavage, ^{0}C:

A.10-15.

B.22-24.

C.26-28.

D.36-38.

E.20-22.

7.Components of the system for washing the patient's stomach in the state of consciousness:

A. gastric probes.

B.spatulas.

C. harnesses.

D. bandages.

E. pipettes.

8. For the clinical picture of the probe getting into the respiratory tract is characterized by all except:

A. cough.

B. cyanosis.

C. buttocks.

D. heartache.

E. asphyxia.

9. Indications for abdominal ultrasound:

A. sharp abdominal pain.

B. suspected appendicitis.

C. Aortic aneurysm.

D. enlargement of the liver or spleen.

E. all of the above.

10. How many hours before the ultrasound examination of the abdominal organs can not eat:

A. 3.

B. 4.

C. 5.

D. 6.

E. Not significant.

Standarts of answers: 1–E , 2–D, 3–E, 4–B, 5–A, 6–E, 7–A, 8–D, 9– E, 10–D.

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

1. Prepare appropriate means and demonstrate the method of performing gastroscopy on the model.

2. Prepare appropriate means and demonstrate the method of performing recto-romanoscopy.

3. Prepare the appropriate means and demonstrate the method of performing gastric probing on the mold.

4. Prepare appropriate means and demonstrate the method of gastric lavage on the mold.

5. Prepare appropriate means and demonstrate the method of performing duodenal sounding on the model.

Recommended literature

Basic:

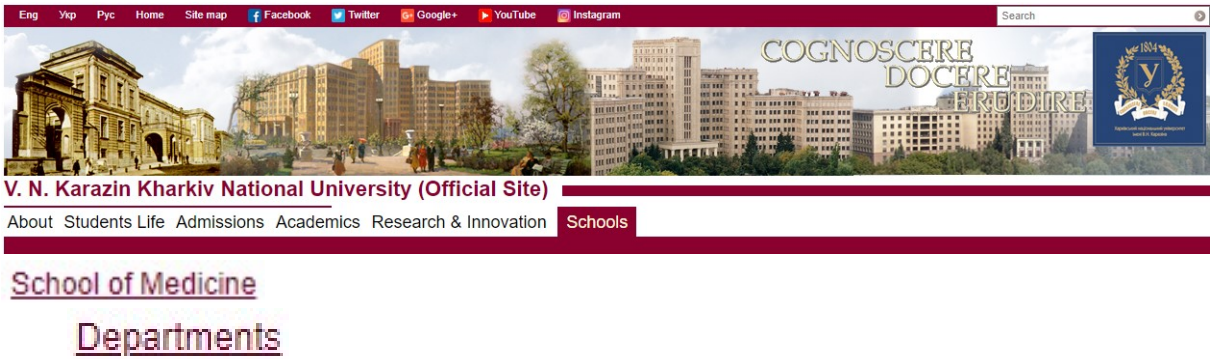
1. Buppert Carolyn. Jones & Bartlett Learning : Nurse Practitioner's Legal and Business Practice Guide. 6th edition. – 2017. – 516 p.
2. Care for patients (practice) : a textbook for students of higher medical educational institutions of the III-IV accreditation level / count. actors; ed. O. N. Kovaleva, V. N Forestry, R. S. Shevchenko, T. V. Frolova. – K .: VSI Medicine, 2014. – 432 p.
3. Kovalyova O. M., Safargalina-Kornilova N. A, Gerasimchuk N. M. Deontology in medicine : a textbook for students of higher medical schools of III-IY levels of accreditation. – Kharkiv, 2014. – 258 p.
4. Doenges Marilynn E., Moorhouse Mary Frances, Murr Alice C. Nursing Diagnosis Manual. 5th edition. – New York : F. A. Davis Company, 2016. – 1123 p.
5. Buppert Carolyn. Jones & Bartlett Learning : Nurse Practitioner's Legal and Business Practice Guide. 6th edition. – 2017. – 516 p.
6. Silver Spring : Guidelines by American Nursing Association. Nursing : Scope and Standards of Practice. 3rd esition. 2015. – 264 p.
7. Perrin K., MacLeod C. Understanding the Essentials of Critical Care Nursing. – New York : Pearson. 2017. – 640 p.

Additional:

1. Goroll A. H., Mulley A. G. Jr. Primary Care Medicine : Office Evaluation and Management of the Adult Patient. – Philadelphia: LWW, 2014. – 5680 p.
2. Workshop on the course "Nursing in a Therapeutic Institution" / Contributors: T. V. Ascheulova, O. M. Kovaleva, I. V Sitina. – Kharkiv : KhNMU, 2018. – 41 p.
3. Silver Spring : Guidelines by American Nursing Association. Nursing: Scope and Standards of Practice. 3rd esition. – New York : 2015. – 264 p.

Annex 1

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



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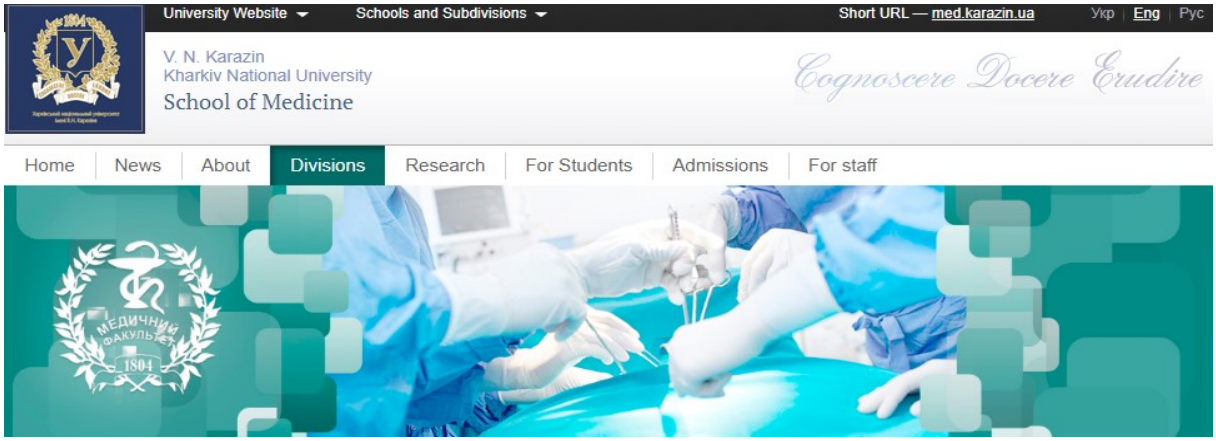

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- Educational materials for students

Annex 2

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The best depositors-2018 – Gluschenko O.V. (Faculty of Economics), Kirichenko V.G. (Physics and Technology Faculty).

The best depositors – Hrytsak Y.P., Chernomaz P.O., Ivanchenko, A.O. (2017, School of International Economic Relations and Travel Business), Kysil V.V. (2017, School of Philology), Khudolii M.O. (2017, Web Communications Center), Akulov O.Yu. (2016, School of Biology), Dukarov S.V. (2015, School of Physics), Domanovski A.N. (2016, 2015, 2013, School of History), Yabluchanskiy N.I. (2015, 2014, 2013, 2012, School of Medicine), Komaristaya V.P. (2014, School of Biology), Sukhonos O.V. (2013, School of Philosophy), Tomin M.S. (2011, School of Medicine).

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- Наукові роботи студентів та аспірантів. Медичний факультет [105]

View Statistics

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

instagram.com/pim_and_phr_karazin/

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Марія Бринза
1.2K подписчика

Signs and symptoms of urinary system disorders

Syndromes in diseases of blood system

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RESPONSIBILITIES OF A NURSE TO PROVIDE A DIAGNOSTIC PROCESS IN THE THERAPEUTIC HOSPITAL. BASIC RULES OF PATIENT PREPARATION FOR GASTROSCOPY, RECTOROMANOSCOPY, COLONOSCOPY, ABDOMEN ULTRASOUND EXAMINATION. PREPARATION AND CARRYING OUT THE GASTRIC AND DUODENAL INTUBATION. GASTRIC LAVAGE

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"