

Ministry of Health of Ukraine
National O.O. Bogomolets Medical University

“APPROVED”

At the staff meeting of the Department of pediatrics №4

Chief of the Department of Pediatrics №4
Academician, Professor, MD, PhD Maidannyk V.G.
_____ (Signature)

“ ____ ” _____ 2019 y.

Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	THE STRUCTURE OF CHILDREN'S TREATMENT-AND-PROPHYLACTIC ESTABLISHMENTS. PECULIARITIES OF THEIR WORK ORGANIZATION. FORMS OF WORK AND FUNCTIONAL DUTIES OF MEDICAL STAFF
Course	2
Faculty	Medical №2

Kyiv -2019

Authorship

Team of specialists of the Department of Pediatrics №4 National Medical O.O. Bogomolets University

Head of the Department - Doctor of Medical Sciences, MD, PhD, Academician of the NAMS of Ukraine Professor V.G. Maidannyk., MD, PhD, Associate Professor Ie.A. Burlaka; MD, PhD, Associate Professor R.V. Terletskiy, MD, PhD Assistant T.D. Klec.

THE STRUCTURE OF CHILDREN'S TREATMENT-AND-PROPHYLACTIC ESTABLISHMENTS. PECULIARITIES OF THEIR WORK ORGANIZATION. FORMS OF WORK AND FUNCTIONAL DUTIES OF MEDICAL STAFF

Topic relevance. Maternity and childhood protection is one of the main parts of population health protection. Its integral part is treatment-and-prophylactic aid to children, which must organize medical observation of healthy children and teenagers and provide them with competent medical service in case of necessity. Each doctor must have definite knowledge of children's medical service organization adopted in Ukraine.

The aim of the lesson: to study the structure, general principles and the volume of work of main children's treatment-and-prophylactic institutions, the volume and forms of a pediatrician's work, the work and duties of middle and junior medical staff.

Follow-up questions:

1. General principles of children treatment-and-prophylactic aid organization.
2. Contents, methods and forms of activity, structure, and functioning peculiarities of the children's (pediatric) polyclinic.
3. Children's permanent establishment (hospital) structure, its peculiarities and work organization.
4. Forms of work and functional duties of a children's department pediatrician and a district pediatrician.
5. Forms of work and functional duties of a children's department nurse and a visiting nurse.
6. Forms of work and functional duties of a children's department junior nurse.

Having covered the topic,

the student should be able to:

1. Define the treatment-and-prophylactic establishment a healthy or ill child must be sent to in order to be given the necessary medical aid.
2. Define the duties of a district pediatrician or a children's department pediatrician.

3. Define the duties of a visiting nurse, a children's department nurse and a children's permanent establishment (hospital) junior nurse.

Relevant materials:

- General principles of children's treatment-and-prophylactic aid organization in Ukraine.
- The list of children's treatment-and-prophylactic establishments.
- The structure and volume of work of a children's (pediatric) polyclinic department.
- Functional duties of a district pediatrician and district (visiting) nurse.
- The structure and volume of work of a children's permanent establishment (hospital).

Medical ethics is a system of moral principles that apply values and judgments to the practice of clinical medicine and in scientific research. Medical ethics allow for people, regardless of race, gender, or religion to be guaranteed quality and principled care.^[1] It creates an obvious guideline to follow. Medical Ethics is based on a set of values that professionals can refer to in the case of any confusion or conflict. These values include the respect for autonomy, non-maleficence, beneficence, and justice. With the help of these values it allows doctors, care providers, and families to create a treatment plan and work towards the same common goal without any conflict. It is important to note that these four values are of equal worth.

General Principles of Children's Treatment-and-Prophylactic Aid Organization in Ukraine

- a) Accessible and free main kinds of children treatment-and- prophylactic aid.
 - b) Combination of treatment and prophylactic activity.
 - c) District principle of outpatient medical aid.
 - d) Application of dispensary method.
 - e) Consecution of outpatient and stationary aid.
 - f) Staged order of expert medical securing.

The List of Children's Treatment-and-Prophylactic Establishments

1. United children's hospitals of different levels, which structure consists of a polyclinic department and a hospital.
 2. Children's departments of maternity hospitals.
 3. Children's sanatoriums.
 4. Children's dispensaries.

5. Teaching and educational establishments and social security establishments (the House of a Child, boarding schools, children's homes and boarding houses).

The Structure and Volume of Work of a Children's (Pediatric) Polyclinic Department

The following structural subdivisions are included into a polyclinic department: a registry office, filter with boxes and isolation ward, a cabinet (department) for prophylactic work with children - a cabinet of a healthy child, cabinets (departments) of pediatricians and other specialists (a surgeon, an orthopedist, a traumatologist, a psychoneurologist, an ophthalmologist, an oto(rhino)laryngologist, an endocrinologist, a cardioreumatologist, an urinologist, an allergologist, a radiologist, a physiotherapist and others), a department of medical rehabilitation (physiotherapeutic, massage and curative gymnastics (therapeutic exercises) cabinets, a pool), a treatment-and-diagnostic department (a laboratory, an X-ray cabinet, functional diagnostics cabinets, a procedure cabinet), a daily hospital.

Children's polyclinic provides the following:

1. Realization of a complex of prophylactic actions (active visiting and regular medical check-up of children from infancy up to 18 years old, prophylactic immunization), control over the milk formula kitchen, parents' hygienic education.
2. Treatment-and-consultation aid to children in a polyclinic hospital and at home.
3. Treatment-and-prophylactic work in children's pre-school establishments and at schools.
4. Anti-epidemiologic actions combined with prophylactic-epidemiological (antiepidemic) service.
5. Children's legal protection.

Functional Duties of a District Pediatrician:

1. Providing of treatment aid to children of their district.
2. Highly qualified specialized medical aid provision to their district children in case of necessity.
3. Children's hospitalization according to entrance diagnoses to an appropriate in-patient department.
4. Conducting anti-epidemiologic actions combined with prophylactic and epidemiological (antiepidemic) service.
5. Regular medical check-up of healthy children, group of risk children, and chronic patients.

6. Medical documentation management and filling in.
7. Sanitary-educational work.

Functional Duties of a District (Visiting) Nurse:

1. Taking part in children's outpatient reception.
2. Conducting anthropometric measurements.
3. Working out a plan of prophylactic immunizations (together with the doctor) and exercising control over its realization.
4. Providing the necessary laboratory researches and execution of doctor's prescriptions during the organization of a "home hospital".
5. Conducting newborns and healthy children visiting.
6. Exercising control over the execution of the dispensary examination of chronic patients and group of risk children.
7. Taking part in anti-epidemiologic actions conducting.
8. Appropriate documentation management.
9. Exercising control over the sanitary state of the cabinet.

The Structure and Volume of Work of a Children's Permanent Establishment (Hospital)

Hospitals are corporations and are therefore overseen by boards of directors. Nonprofit hospitals have boards that often consist of influential members of health care and local communities. Many hospitals were founded by a religious group and maintain religious affiliation. These hospitals often include clergy and congregation leadership in their boards. Educationally affiliated hospitals are often overseen by universities. Therefore, university boards of trustees or regents may double as the board of directors for a hospital. Multi-hospital systems, particularly for-profit ones, usually have one board of directors overseeing numerous facilities.

Boards of directors leave it to their executives to see that their decisions are carried out and that the day-to-day operations of the hospital are performed successfully. The chief executive officer is the top boss responsible for everything that goes on in a hospital. However, hospitals usually have chief nursing officers, chief medical officers, chief information officers, chief financial officers and sometimes chief operating officers, who also carry a lot of weight. This group of top executives forms the central core management.

The top managers of each hospital department report to the core management. These people are responsible for one type of medical or operational service. Most departments are areas of patient care such as orthopedics, labor and delivery or the emergency department. There also are non-patient-care departments such as food services and billing. Clinical departments usually have large staffs, significant supply

and purchasing needs and numerous regulations they must comply with. Therefore, administrators often have assistant administrators who help them oversee their multifaceted operations.

Within a department, there are the people who directly oversee patient care. Nurse managers, directors of rehabilitation services and supervising physicians have people under them who give hands-on patient care. This level of management ensures that the staff members are acting appropriately, giving the best care, addressing all of their duties, complying with hospital and legal requirements and, for nurses and allied health care workers, following physician orders. When something goes wrong with a patient or a clinician, these people handle the problem. They also usually oversee schedules and basic human resource functions for their employees.

Most of a hospital is composed of service-providing staff. From nurses and physical therapists to line cooks and laundry workers, it takes a lot of hands-on staff to make everything happen. These people have very specific job descriptions and duties, which hospitals need them to perform very well to ensure the safety and health of patients.

Functional Duties of a Pediatrician of a Children's Permanent Establishment (Hospital) are:

1. Reception of all the ill patients sent to the hospital.
2. Providing examination and treatment of children of the department, using up-to-date diagnostic and therapeutic methods in work.
3. Exercising control over the sanitary and anti-epidemiologic actions conducted among the patients.
4. Supervising the work of the middle and junior medical staff.
5. Appropriate documentation management.
6. Conducting sanitary and educational work among the patients and their parents.

A nurse is a representative of the middle medical staff, a doctor's assistant in treatment-and-prophylactic, children's pre-school, and school establishments. A person may be appointed a nurse in case he/she graduated from a medical school with not less than a 2 years' term of study, and has a certificate of a qualified nurse.

Functional Duties of a Nurse:

1. Doctor's prescriptions execution in accordance with the list of prescriptions.
2. Exercising sanitary state control in the wards under responsibility.
3. Material sampling for laboratory researches and exercising control over getting the results back.
4. Getting the necessary instruments and equipment ready for work.

5.Examining skin of head and its scalp of the children taken to the department, sending them to appropriate wards, and getting them to know the rules of staying in the hospital.

6.Tending ill patients.

7.Taking temperature of ill patients, calculating pulse frequency, taking blood pressure.

8. Appropriate documentation management.

9.Taking part in sanitary and educational work.

A junior nurse (nurse of general care) training is realized directly in hospitals or at short-term courses.

Tests

1. What medical establishment does not provide treatment-and-prophylactic aid to children?
 - 1.1. Children's polyclinic hospital.
 - 1.2. Children's in-patient hospital.
 - 1.3. Maternity welfare clinic.
 - 1.4. Children's department of maternity hospital.
 - 1.5. Children's sanatoriums.
2. What educational establishments and establishments of social care do not participate in treatment-and-prophylactic aid providing to children?
 - 2.1. Children's homes.
 - 2.2. Schools.
 - 2.3. Boarding schools.
 - 2.4. Art schools.
 - 2.5. Children's pre-school establishments.
3. What subdivision does not belong to the children's polyclinic structure?
 - 3.1. Registry office.
 - 3.2. Reception ward.
 - 3.3. Diagnostic department.
 - 3.4. Pediatrician's cabinets.
 - 3.5. Restorative treatment department.
4. What subdivision belongs to the restorative treatment department?
 - 4.1. An X-ray cabinet.
 - 4.2. A laboratory.
 - 4.3. A functional diagnostics cabinet.
 - 4.4. A physiotherapeutic room.
 - 4.5. An ultrasonic diagnostics cabinet.

5. What of the duties given below are the functional duties of an in-patient junior nurse?
 - 5.1. Body temperature taking.
 - 5.2. Material sampling for laboratory researches.
 - 5.3. Giving out of drugs.
 - 5.4. Bedsore prophylaxis.
 - 5.5. Prophylactic immunizations carrying out.
6. Which of the duties given below is not the functional one of a nurse?
 - 6.1. Doctor's prescriptions execution in accordance with the list of prescriptions
 - 6.2. Getting the necessary instruments and equipment ready for work
 - 6.3. Conducting the sanitary handling of patients
 - 6.4. Taking temperature of ill patients, calculating pulse frequency, taking blood pressure
7. Which of the following doesn't belong to children's in-patient department structure?
 - 7.1. Healthy child cabinet
 - 7.2. Canteen
 - 7.3. Game/educational room
 - 7.4. Patients' wards
8. A district pediatrician has all following duties except of:
 - 8.1. Providing of treatment aid to children of their district
 - 8.2. Hospitalization of children into in-patient departmenty
 - 8.3. Anthropometric measurements carrying out
 - 8.4. Educational work with patients and their parents
9. Which of the following doesn't belong to district nurse duties?
 - 9.1. Prescription of treatment to children
 - 9.2. Taking part in childrens' outpatient reception
 - 9.3. Fulfilling of doctor's prescriptions
 - 9.4. Anthropometric measurements conducting
10. Which of the following is not provided by the childrens' polyclinic?
 - 10.1. Treatment-and-consultation aid to children in a polyclinic hospital and at home
 - 10.2. Anti-epidemiologic actions combined with prophylactic-epidemiological (antiepidemic) service
 - 10.3. Treatment-and-prophylactic work in children's pre-school establishments and at schools
 - 10.4. Children's legal protection
 - 10.5. In-patient treatment of patients

Correct answers: 1.3; 2.4; 3.2; 4.4; 5.4; 6.3; 7.1; 8.3;9.1; 10.5;

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1. Textbook of Basic Nursing (Lippincott's Practical Nursing) Tenth Edition by Caroline Bunker Rosdahl RN BSN MA (Author), Mary T. Kowalski RN . – 2013. –PP.256.
2. Official web-site of Ministry of Healthcare (Ukraine). Updated 2016.

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Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	THE ORGANIZATION OF ANTIEPIDEMIC CONDITIONS IN A CHILDREN'S HOSPITAL. HOSPITALIZATION OF PATIENTS. CLEANSING AND TRANSPORTATION
Course	2
Faculty	Medical №2

Kyiv -2019

THE ORGANIZATION OF ANTI-EPIDEMIC CONDITIONS IN A CHILDREN'S HOSPITAL. HOSPITALIZATION OF PATIENTS. CLEANSING AND TRANSPORTATION

Topic relevance. Ill children are kept in an inpatient department. That is why significant attention must be paid to the actions preventing the bringing in and distribution of infection. It explains the importance of knowledge of basic sanitary and anti-epidemic conditions for a doctor of any specialization.

The aim of the lesson: to master the rules of organizing and conducting the necessary sanitary-hygienic and anti-epidemic actions in children's hospital departments; to study the rules of patient hospitalization.

Follow-up questions:

3. The idea, aims and content of sanitary-anti-epidemic regimen.
4. Sanitary-anti-epidemic conditions in a reception ward.
5. The rules of patients' hospitalization, cleansing, and pediculosis examination.
6. Peculiarities of a child's transportation to a treatment department.
7. Sanitary-hygienic and anti-epidemic actions in a pediatrician department.

Having covered the topic, the student should be able to:

1. Evaluate the hygienic regimen in the ward.
2. Conduct prophylactic disinfection of children's department wards.
3. Conduct reception and cleansing of a child at a children's department.
4. Transport an ill child to a treatment department.

Relevant materials:

- Definition and constituent parts of sanitary-anti-epidemic conditions (regime).
- Separate objects disinfection regime.
- Sanitary-anti-epidemic regime of a reception ward.
- Antipediculosis actions conducting.

When we use the term “cleaning,” we mean the removal of all visible dirt, dust or other foreign materials. This means that equipment that has been cleaned by hand with soap/detergent and water is free of all physical and chemical residues and is free of most microorganisms.

The goal of cleaning is to reduce the bioburden. The bioburden (or initial contamination) refers to the population of viable organisms on a material, instrument, product or package. Depending on where and how the item will be used, cleaning may be enough to reduce the bioburden, but for most other types of medical equipment, cleaning is only the first step, which will be followed either by disinfection alone or

disinfection and then sterilization. In other words, cleaning is always the first step in the subsequent disinfection and sterilization of equipment.

There are five main reasons why cleaning all medical equipment is so crucial:

1. It gets rid of all blood, pus, dirt or foreign particles that are left, which may cause dangerous complications for the next person to be operated on using that instrument.
2. It reduces the bioburden.
3. It takes away the breeding ground of surviving germs.
4. It prevents the corrosion of highly precise and expensive tools, which have delicate hinges and pivots.
5. It ensures the safe transfer of equipment to be assembled and packed for disinfection or sterilization.

When we use the term disinfection we mean the destruction of all vegetative (living) microorganisms, without necessarily killing all bacterial spores, a difficult-to-kill form of bacteria which exists in a kind of hibernation state that can withstand tough conditions.¹ Some types of bacterial spores are very dangerous, e.g., anthrax, and tetanus. In order to kill ALL microorganisms, including bacterial spores, we must sterilize (see next section).

Hospital rooms may be disinfected with chemicals whereas medical equipment is placed inside an automatic washer machine (think dishwasher for tools instead of dishes). Items that come in contact with bodily fluids or feces, such as bedpans and urinals, need to be disinfected in a “washer disinfecter” machine. But the vast majority of medical equipment will require disinfection and then sterilization.

A word about the terms disinfection and decontamination: In much of the medical industry, the terms decontamination and disinfection are used interchangeably. The problem with using the term disinfection when referring to medical equipment is that medical equipment can't actually become infected in the first place; only people (or animals) can! Have you ever heard of a coughing needle or a feverish pair of scissors? No! Alas, while this term is not strictly correct, it is the one used most often to describe this second stage of the process. And as if that weren't confusing enough, sometimes decontamination is used as a synonym for disinfection, but sometimes it refers to the whole “decontamination process,” which is another way of saying all three stages of cleaning, disinfection, and sterilization.

After our equipment has gone through the processes of cleaning and disinfection, it is ready for the last and most serious process of germ eradication,

sterilization: the killing of all microorganisms, including bacterial spores. The World Health Organization recommends that all instruments that could possibly come in contact with fluids inside the body should be sterilized before use (ibid.).

The oldest method of sterilization is open-flaming, in which the item was held over an open flame to kill all germs (think: cavemen and an animal on a spit over an open fire.) In modern times, thankfully, there are more advanced methods of sterilization such as:

- moist heat
- dry heat
- biocide by gas or chemicals
- radiation

By far, the industry standard for sterilization today is to use pressurized high-temperature steam to kill all microorganisms in a specialized machine called an autoclave. Based on the model of the pressure-cooker, modern autoclaves run various cycles for different types of equipment and materials, as well as liquids. They come in different sizes, from small tabletop microwave oven-sized machines to large hospital elevator-sized machines. Depending on the needs of the hospital, there may be one or several autoclaves used on a daily basis to sterilize all equipment used during operations.

In every hospital there is a special department called the **Central Sterile Services Department (CSSD)** (or sterile processing department/SPD) where all cleaning, disinfection, and sterilization takes place. Each hospital's CSSD works hard to ensure that once equipment and materials emerge from the autoclave that they stay sterile until opened in the operating room. There are specific protocols for how instruments must be packaged and handled before and after autoclaving to ensure that the items remain sterile and therefore don't become recontaminated.

Antipediculosis Actions Conducting

Pediculosis is a pathological state caused by lice (Pediculus, Pthirus). Three species of lice are parasitic on a human body: head, clothes, and pubis (names denoting their location). Stages of their development are the following: ovum — nit, larva, and sexually mature louse.

1. Antipediculosis actions organization and conducting

In order to expose pediculosis systematic examination is done among the following categories of population:

1. Children of children's pre-school establishments are examined daily.
2. Pupils of secondary and technical schools are examined after holidays.
3. Persons at a reception ward are examined by the medical staff of the ward; during the period of treatment they are examined every 7 — 10 days; when discharged, persons are examined by the medical staff of corresponding departments.
4. Persons who were in contact with pediculosis patients are examined within 24 hours after the pediculosis focus is located.

Pediculosis patients are put down on the register of infectious diseases calculation and registration (form 060), an emergent notice is sent to an epidemiological station, and a special mark is put on the title-page of their case history.

2. *Pediculosis treatment methods*

Mechanic method: the lice and their ova are combed out with a thick comb, hair is cut or shaved.

Chemical method presupposes the usage of the following means:

1. 20% aqueous-soapy of benzyl benzoate (10-30 ml, term of exposition - 20-30 min.) or 25% benzyl benzoate cream (term of exposition - 30 min.).
2. 10% soapy emulsion (10-50 ml, term of exposition - 30-60 min.).
3. 50% aqueous soapy-solvent suspension (30—50 ml, term of exposition - 30 min.)
4. *Nittifor* solution (Hungary) - 50-60 ml, term of exposition - 40 min.
5. *Hunter* antipediculosis shampoo (Canada) - 10 ml, term of exposition - 10 min.; treatment must be repeated in 48 hours. This product is not allowed for children under 2.5 years.
6. *Anti-Pi* shampoo (Poland) - 1 ml, term of exposition - 5 min.
7. *SID (CID)* shampoo (Ukraine).
8. *Pedilin* shampoo.
9. 4% Permetrin ointment.
10. *Para-plus* aerosol (France), term of exposition — 10 min. This product is not allowed for children under 2.5 years.

Pediculosis processing of children under 5 years, pregnant women, nursing mothers, people with injured skin, and seriously ill persons is strictly prohibited. In such cases it is preferable to use the mechanic method.

• Linen with lice is boiled in a solution of calcimined soda for 15 min. and is to be washed from both sides. According to the manifestations of the disease the box processing of bed-clothes is done. As for clothes, the box method, *Para-plus* aerosol, 2% sulfalan, or A-PAR are mostly used.

- In case of lice detection, person cleansing, bed linen and clothes change, as well as ward disinfection are made besides disinsection.

Treatment of pediculosis has 2 aspects: medication and environmental control measures. Increasing emphasis is being placed on understanding the life cycle of lice in order to provide effective treatment.

Not all treatment preparations are ovicidal. For weakly ovicidal or non-ovicidal pediculicides, routine retreatment is recommended typically 7-9 days after the first treatment. For strongly ovicidal pediculicides, retreatment is recommended only if live (ie, crawling) lice are still present after treatment. Retreatment should ideally occur after all eggs have hatched but before new eggs are produced.^[4] It is extremely important to use medications as directed to ensure total eradication of the lice through their life cycle. In addition, all infested persons in a household and their infested close contacts and bedmates should be treated at the same time.

Head lice have been found on hats, scarves, brushes, combs, hair accessories, linens, towels, and stuffed animals. Since exposure to these fomites could result in infestation, it is recommended that such items used by the infested person within 2 days prior to pediculicide treatment be machine washed with hot water and dried with hot air since the lice and eggs are killed after 5 minutes of exposure to temperatures greater than 53.5°C (128.3°F). Items that cannot be laundered can be dry-cleaned or sealed in a plastic bag for 2 weeks. The floors and furniture should be vacuumed in order to remove hairs from an infested individual, which might have been shed with viable nits attached. Children should also be educated not to share combs, brushes, hair accessories, and towels.

In the treatment of body lice, medications are less essential than environmental measures. Patients with body lice should have infested clothing, bedding, and towels laundered with hot water (at least 130°F) and then dried in a dryer using a hot setting. For items that cannot be washed in a washing machine, the CDC recommends dry-cleaning or sealing and storing for 2 weeks in a plastic bag. If the patient maintains hygiene with regular appropriate laundering of clothing, changes into clean clothing at least weekly, and avoids the sharing of clothing, beds, bedding, and towels used by other infested individuals, pediculicides are generally not required. If hygiene cannot be maintained, treatment with a pediculicide used to treat head lice may be necessary. Fumigation or dusting with chemical insecticides is occasionally needed to control and prevent spread of louse-bourne infections.

Tests

- 1.1. Hospital-acquired (nosocomial) infection is:
 - 1.2. the infection of a doctor.
 - 1.3. a home infection.
 - 1.4. an inner hospital infection.
 - 1.5. an infection at children's establishment.
2. Which of the following solutions does not belong to the group of disinfecting ones?
 - 2.1. 1—2% chloride of lime solution.
 - 2.2. 3% hydrogen peroxide solution.
 - 2.3. 1% chloramin solution.
 - 2.4. 5% Trichlorfon solution.
 - 2.5. 1% soda ash solution.
3. All the means given below are used for prophylactic disinfection except of:
 - 3.1. Quartz lamps in wards.
 - 3.2. Wards airing.
 - 3.3. Disinfection of furniture and toys with 1% chloride of lime solution.
 - 3.4. Thermometer disinfection with 3% hydrogen peroxide solution.
 - 3.5. Floor sweeping.
4. Which of the documents is not needed for a child's hospitalization?
 - 4.1. An appointment card of a doctor.
 - 4.2. A certificate of epidemic situation at a children's establishment.
 - 4.3. A certificate of epidemic situation from a local doctor.
 - 4.4. A certificate of prophylactic inoculations.
 - 4.5. A certificate of parents' health state.
5. Choose the optimal reception ward staff tactics in case of pediculosis detection, the patient is a ten-year-old child:
 - 5.1. To cut the child's hair.
 - 5.2. To use one of antipediculosis means for child's head cleansing.
 - 5.3. To turn the child down from somatic department hospitalization.
 - 5.4. To comb out the nits.
 - 5.5. To hospitalize the child to the infectious department.
6. Choose the optimal reception ward staff tactics in case of pediculosis detection, the patient is a two-year-old child:
 - 6.1. To cut the child's hair.
 - 6.2. To use one of antipediculosis means for child's head cleansing.
 - 6.3. To turn the child down from somatic department hospitalization.
 - 6.4. To comb out the nits.

- 6.5. To hospitalize the child to the infectious department.
7. Point out the wrong way of patients' transportation to a treatment department:
 - 7.1. Accompanied by a medical man.
 - 7.2. On foot (a patient arrives to the hospital alone).
 - 7.3. On stretchers.
 - 7.4. On surgical transport.
 - 7.5. On parents' hands.
8. In which of given below cases pediculosis procession is not contraindicated?
 - 8.1. Pregnancy
 - 8.2. Severily ill patients
 - 8.3. Nursing mothers
 - 8.4. Measles
 - 8.5. Skin injuries on the head
9. Hospitalized child needs an immediate emergency carrying out. It is known that he has pediculosis. The following should be done:
 - 9.1. Emergent aid provision, hospitalization to the box-ward and pediculosis procession
 - 9.2. Pediculosis procession, emergent aid provision, hospitalization
 - 9.3. Hospitaloization to a general ward, pediculosis procession, emergent aid provision
 - 9.4. This child can't be hospitalized with pediculosis, he should be admitted to the infectional department
10. What should be done with pediculosis child clothes?
 - 10.1. Destroyed
 - 10.2. Washed in a hot water
 - 10.3. Boiled, disinfected and ironed
 - 10.4. Washed and ironed

Correct answers: 1.4; 2.4; 3.5; 4.5; 5.2; 6.1; 7.2; 8.4; 9.1; 10.3.

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1. Tripathi KD, editor. Essentials of Medical Pharmacology, 6th edition, New Delhi: Jaypee Publications; 2010:812.
2. McCormack PL. Spinosad: In pediculosis capitis. Am J Clin Dermatol 2011;12:349-53.
3. Official web-site of Ministry of Healthcare (Ukraine). Updated 2016.

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Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	THE STAFF AND PATIENTS' PERSONAL HYGIENE. HYGIENIC AND TREATMENT BATHS, THE TECHNIQUE OF THEIR APPLICATION TO SERIOUSLY ILL PATIENTS. BEDSORES PROPHYLAXIS AND TREATMENT
Course	2
Faculty	Medical №2

Kyiv -2019

THE STAFF AND PATIENTS' PERSONAL HYGIENE. HYGIENIC AND TREATMENT BATHS, THE TECHNIQUE OF THEIR APPLICATION TO SERIOUSLY ILL PATIENTS. BEDSORES PROPHYLAXIS AND TREATMENT

Topic relevance. Medical staff personal hygiene is an important factor of antiepidemic conditions in a children's hospital, and the hygienic care of a child has a great importance for epidemic conditions development and effectiveness. Correct execution of hygienic and treatment baths has a great importance for treatment effectiveness.

The aim of the lesson: to study the peculiarities of personal hygiene of children's hospital staff, to study the peculiarities of personal hygiene of children of different age, to master the technique of hygienic and treatment baths execution, to master the skin care of an ill child.

Follow-up questions:

1. Peculiarities of children's hospital staff personal hygiene.
2. Peculiarities of hygiene of ill children of different age, girls in particular.
 3. Hygienic baths execution for children of different age.
 4. Treatment baths carrying out.
5. Peculiarities of skin care of ill children; intertrigo and bedsore prophylaxis.
 6. Intertrigo and bedsore treatment.

Having covered the topic,

the student should be able to:

1. Check the necessary hygienic actions execution by the medical staff.
2. Execute a hygienic or treatment bath for a child of any age.
 3. Toilet a child of any age.
 4. Dress and wrap up an ill child correctly.
 5. Execute intertrigo and bedsore processing.
 6. Remake a bed of a seriously ill patient.

Relevant materials:

- Staff's personal hygiene.
- Child's personal hygiene.
- Special rules of hygiene of children of the first year of life.
 - Treatment baths.
 - Bedsores prophylaxis and treatment.

Staff's Personal Hygiene

The objective is to prevent cross infection

- between patients, via hands and clothing of the staff (transmission by indirect contact)
- from patients to staff and from staff to patients (direct transmission)

Basic hygiene procedures include

- work clothes
- hand hygiene, i.e. always hand disinfection, sometimes hand washing
- gloves
- protective clothing: disposable plastic aprons or protective gowns (patient specific)
- sometimes splash protection: masks, protective goggles/visors (or visors for the whole face)
- sometimes breathing masks

All staff categories must wear short-sleeved work clothes during examinations, care and treatment that require personal contact with patient or bed. Short-sleeved work clothes and hands and forearms free from watches and jewellery are a prerequisite to good hand hygiene.

Work Clothes:

- can be made of disposable or reusable material
- should be provided by the employer
- only to be used at the workplace even if the employer does not provide work clothes
- to be changed daily and always if contaminated
- must be washed at a minimum temperature of 60°C in a laundry or in exceptional cases in a controlled process at the work place
- must be stored so that they remain clean.

A clean, short-sleeved singlet/shirt may be worn under work clothes as well as underwear, socks and headscarf/veil.

Long hair must be pinned up and beards restrained so that they do not fall or disrupt work. If you are a carrier of staphylococci even individual strands of hair can spread infections. If you use a headscarf it must be pinned so that it does not fall; any hanging parts must be tucked into work clothes. It must be changed daily. Hair covers are required in some places of work such as operating theatres and sterile rooms.

Rings, bracelets and wristwatches may not be worn in connection with healthcare work. They collect bacteria and prevent satisfactory hand hygiene. They can also injure the skin of patients. Earrings and other jewellery piercings may be worn as

long as they do not hang or dangle in the work area. Piercings present a transmission risk via the hands if the piercing hole is infected. There is no proven infection risk if the piercing hole has healed, regardless of the site.

Patients' Personal Hygiene

Medical staff of a children's hospital and parents look after the hygienic state of an ill child.

The following is connected with the personal hygiene of a patient older than a year.

1. Taking care of corresponding parts of head and body:

- washing - twice a day in the morning and evening, on display - the necessary number of times; this procedure, as well as other procedures, a child executes itself, if it is a non-serious state; a seriously ill child is washed by a nurse or mother;

- teeth cleaning with a brush - twice a day, it is necessary to teach a child to clean the teeth correctly;

- an ill child is to rinse the mouth cavity after each food intake, especially if a child has mouth cavity diseases (stomatitis, tonsillitis, pharyngitis). 1.5-2% natrium hydrocarbonate solution or 1% natrium chloride solution are to be used;

- ears are to be washed every day in the morning; in case of ear- wax (cerumen) detection it is removed by a nurse in such a way: 3— 5 drops of 3% hydrogen peroxide solution are dripped into the ear, or sterilized liquid paraffin is put into the ear; after that the ear- wax is removed from the ear by circular movements using cotton tampons;

- eyes are washed twice a day during washing without special prescription;

- nasal cavities are cleared by a child of an older age by itself; as for infants, a nurse inserts a cotton tampon watered with oil solution into the nasal cavity, then clears the nasal cavity with circular movements;

- daily hair care is executed with an individual comb depending on the hair length; the head must be washed not less than once a week;

- nails are cut once a week;

- external genitals are washed with warm water; girls are washed in a front to back direction with the aim of urogenital apparatus infection prophylaxis;

- hygienic baths are made once a week, bath's duration for a 2- year-old child is 8-10 min., and 10-20 min. for a child older than 2 years.

2. As a rule, underwear and bed linen are changed once a week. In case of necessity it is done the required number of times.

A seriously ill patient's clothes are changed in the following order:

1) the shirt is removed off the head;

- 2) the shirt is removed from the hands;
- 3) a clean shirt is put on the hands;
- 4) the clean shirt is put on the head and body.

In case a patient's hand is traumatized, the sleeve is to be removed from the healthy hand and put on the healthy hand first.

There are two methods of bed re-making for a seriously ill patient. The order and the rules are the following:

A.1. the bed-sheet under a child is folded in two bolsters: in the direction from head to waist and from feet to waist;

A.2. the double bolster is removed;

A.3. a double bolster is formed of a clean bed-sheet. This double bolster is located under a child's waist;

A. 4. the double bolster is unfolded in the directions of head and feet; then it is leveled smoothly.

B. 1. A patient is placed on the side on one side of the bed;

B.2. the bed-sheet is folded along on the free side of the bed;

B.3. a clean bed-sheet is put along the same bed side;

B.4. a patient is replaced onto the clean bed-sheet;

B.5. the same procedure is conducted on the other bed side.

3. Special rules of hygiene of children of the first year of life; taking care of corresponding parts of head and body:

— washing must be done once a week (in the morning) during the first month of life; during the second and third months of life - twice a week (in the morning and evening), warm boiled water is the must, the face may be wiped with cotton wool. Starting with the 5th month of life a child may be washed with tap water (the temperature must be 18-20°C), a nurse or mother washes the child;

— due to the mucous membrane delicacy and its possible injuries it is not allowed to wipe the mouth cavity of an infant;

— exterior parts of ears, exterior acoustic meatuses are cleaned with dry cotton tampons;

— in case of necessity eyes are washed from the external angle to the internal angle with sterilized gauze watered with tea;

— for nasal cavity cleaning a sterilized tourniquet watered with sterilized liquid paraffin is inserted 1 - 1.5 cm deep (a separate tourniquet for each nostril); after this nostrils are cleaned with circular movements from within to the outside;

— the nails are cut once a week;

— the younger the child is, the more often it must be washed: after each urination and dejection. The washing is executed with tap water only. Girls are washed in front to back direction. The skin must be wiped and oiled with sterilized oil.

Obligatory rules of hygienic baths:

— frequency - the first bath is made on the second week of life, when umbilical cord remnants drop off and umbilical wound skins over; there must be daily baths during the first 6 months, and every other day during the second 6 months;

— the bath is made on the appointed time - not earlier than an hour after feeding or 40-50 min. after it, and 1-1.5 hours before sleeping. A child must rest for 30 min. after having a bath;

- the tub (plastic or enameled) must be carefully washed before every usage. It must also be rinsed with hot water. Water temperature depending on age is the following: the first month - 37.5- 37°C, 2-6 months - 37-36.5°C, after 6 months - 36.5-36°C;

- the bath's duration on the first year of life is gradually enlarged from 3—5 min. to 10 min.

Child's position:

- younger than 6 months - a child must be located aflat, her head must be a little bit higher than the body (water must not get into the external acoustic meatuses); the tub is filled up to the child's nipple level, the upper part of the thorax must not be covered;

- after 6 months - a child sits in a tub.

The stages of the procedure:

- the whole surface of skin, especially its folds (on the neck, behind ears, underarms, and inguinal folds), is to be washed twice a week with water and children's soap;

- a child must be raised a bit above water and rinsed with clear water out of a separate crockery;

- a child must be wrapped up in a swaddling band and the skin is to be dried with accurate movements;

- the folds are to be oiled with sterilized oil;

- an infant must be swaddled, an older child — dressed;

- seriously ill patients are put into and taken out of water on a bed-sheet.

A child at the age of up to 3 months must be provided with the necessary set of clean linen both in a children's department, and at home to maintain fully hygienic conditions.

Bedsore Prophylaxis and Treatment

Bedsore prevention is easier to prevent than to treat, but that doesn't mean the process is easy or uncomplicated. And wounds may still develop with consistent, appropriate preventive care. Your doctor and other members of the care team can help develop a good strategy, whether it's personal care with at-home assistance, professional care in a hospital or some other situation. Position changes are key to preventing pressure sores. These changes need to be frequent, repositioning needs to avoid stress on the skin, and body positions need to minimize pressure on vulnerable areas. Other strategies include taking good care of your skin, maintaining good nutrition, quitting smoking and exercising daily.

Consider the following recommendations related to repositioning in a wheelchair:

- **Shift your weight frequently.** If you use a wheelchair, try shifting your weight about every 15 minutes. Ask for help with repositioning about once an hour.
- **Lift yourself, if possible.** If you have enough upper body strength, do wheelchair pushups — raising your body off the seat by pushing on the arms of the chair.
- **Look into a specialty wheelchair.** Some wheelchairs allow you to tilt them, which can relieve pressure.
- **Select a cushion that relieves pressure.** Use cushions to relieve pressure and help ensure your body is well-positioned in the chair. Various cushions are available, such as foam, gel, water filled and air filled. A physical therapist can advise you on how to place them and their role in regular repositioning.

Consider the following recommendations when repositioning in a bed:

- **Reposition yourself frequently.** Change your body position every two hours.
- **Look into devices to help you reposition.** If you have enough upper body strength, try repositioning yourself using a device such as a trapeze bar. Caregivers can use bed linens to help lift and reposition you. This can reduce friction and shearing.
- **Try a specialized mattress.** Use special cushions, a foam mattress pad, an air-filled mattress or a water-filled mattress to help with positioning, relieving pressure and protecting vulnerable areas. Your doctor or other care team members can recommend an appropriate mattress or surface.
- **Adjust the elevation of your bed.** If your hospital bed can be elevated at the head, raise it no more than 30 degrees. This helps prevent shearing.
- **Use cushions to protect bony areas.** Protect bony areas with proper positioning and cushioning. Rather than lying directly on a hip, lie at an angle with cushions supporting the back or front. You can also use cushions to relieve pressure against

and between the knees and ankles. You can cushion or "float" your heels with cushions below the calves.

Protecting and monitoring the condition of your skin is important for preventing pressure sores and identifying stage I sores early so that you can treat them before they worsen.

- **Clean the affected skin.** Clean the skin with mild soap and warm water or a no-rinse cleanser. Gently pat dry.
- **Protect the skin.** Use talcum powder to protect skin vulnerable to excess moisture. Apply lotion to dry skin. Change bedding and clothing frequently. Watch for buttons on the clothing and wrinkles in the bedding that irritate the skin.
- **Inspect the skin daily.** Inspect the skin daily to identify vulnerable areas or early signs of pressure sores. You will probably need the help of a care provider to do a thorough skin inspection. If you have enough mobility, you may be able to do this with the help of a mirror.
- **Manage incontinence to keep the skin dry.** If you have urinary or bowel incontinence, take steps to prevent exposing the skin to moisture and bacteria. Your care may include frequently scheduled help with urinating, frequent diaper changes, protective lotions on healthy skin, or urinary catheters or rectal tubes.

Your doctor, a dietitian or other members of the care team can recommend nutritional changes to help improve the health of your skin.

- **Choose a healthy diet.** You may need to increase the amount of calories, protein, vitamins and minerals in your diet. You may be advised to take dietary supplements, such as vitamin C and zinc.
- **Drink enough to keep the skin hydrated.** Good hydration is important for maintaining healthy skin. Your care team can advise you on how much to drink and signs of poor hydration. These include decreased urine output, darker urine, dry or sticky mouth, thirst, dry skin, and constipation.
- **Ask for help if eating is difficult.** If you have limited mobility or significant weakness, you may need help with eating in order to get adequate nutrition.

Tests

1. Bed re-making is done:
 - 1.1. Twice a month.
 - 1.2. Daily.
 - 1.3. Not less than 1 time in 7-10 days.
 - 1.4. Every 3 days.

2. Bedsore prophylaxis among seriously ill children includes:
 - 2.1. Chloride of lime skin treatment.
 - 2.2. Timely underwear and bed linen change.
 - 2.3. 96% spirit solution skin treatment.
 - 2.4. 10% boric acid solution skin treatment.
 - 2.5. 10% potassium permanganate solution skin treatment.
3. Bedsore treatment at hyperemia stage includes the following:
 - 3.1. Ultraviolet irradiation of hyperemia places.
 - 3.2. Bandaging with 10% sodium chloride solution.
 - 3.3. Bandaging with Vyshnevskiy's ointment.
 - 3.4. Bandaging with solcoseryl ointment.
4. Bedsore treatment at bubbles appearance stage includes the following:
 - 4.1. Bubbles smearing with 1% boric acid solution.
 - 4.2. Bubbles smearing with 10% potassium permanganate solution.
 - 4.3. Bubbles smearing with brilliant green with following bandaging.
 - 4.4. Bandaging with Vyshnevskiy's ointment.
5. Bedsore treatment at clearing stage includes the following:
 - 5.1. Smearing with 40% spirit solution.
 - 5.2. Bandaging with Vyshnevskiy's ointment.
 - 5.3. Smearing with brilliant green.
 - 5.4. Bandaging with 10% boric acid solution.
 6. Medium temperature baths are baths with a temperature which makes:
 - 6.1. 38 – 40°C
 - 6.2. 37°C
 - 6.3. 30 – 20°C
 - 6.4. Less than 20°C
 7. 8 months old child should take a bath:
 - 7.1. Every day
 - 7.2. Each other day
 - 7.3. Once a week
 - 7.4. Once in 3 – 5 days
 8. After the birth the first child's bath takes a place on:
 - 8.1. The first day
 - 8.2. The third day
 - 8.3. The first week
 - 8.4. The second week
 9. Bathing duration in a child elder than 2 years makes:
 - 9.1. 10 – 20 minutes
 - 9.2. 5 – 10 minutes

- 9.3. 20 – 30 minutes
- 9.4. 3 – 5 minutes
- 10. In which case the bath is contraindicated to a child?
 - 10.1. Atopic dermatitis
 - 10.2. Mild severe viral disease
 - 10.3. Rickets
 - 10.4. Nervous disorders
 - 10.5. High body temperature

Correct answers: 1.3; 2.2; 3.1; 4.3; 5.2; 6.2; 7.2; 8.4; 9.1; 10.5.

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Ministry of Health of Ukraine
National O.O. Bogomolets Medical University

“APPROVED”

At the staff meeting of the Department of pediatrics №4

Chief of the Department of Pediatrics №4
Academician, Professor, MD, PhD Maidannyk V.G.
_____ (Signature)

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Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	CHILDREN'S HOSPITAL MEDICAL DOCUMENTATION. THE RULES AND WAYS OF CONDUCTING THE DUCUMENTATION BY A NURSE AND PEDIATRICIAN. THE SCHEME OF THE HISTORY OF CHILD'S DEVELOPMENT AND CASE HISTORY
Course	2
Faculty	Medical №2

Kyiv -2019

CHILDREN'S HOSPITAL MEDICAL DOCUMENTATION. THE RULES AND WAYS OF CONDUCTING THE DUCUMENTATION BY A NURSE AND PEDIATRICIAN. THE SCHEME OF THE HISTORY OF CHILD'S DEVELOPMENT AND CASE HISTORY

Topic relevance. There are uniform letterheads of medical documentation for prophylactic-and-treatment establishments activity control. The work with children of corresponding district and in children's prophylactic-and-treatment establishments is fixed in such documentation. Taking into account the fact that pediatrician is the main organizer of such an activity and of medical aid provided to children under 18 years old, one must know this documentation.

The aim of the lesson: to study the main medical documentation filled in by a local pediatrician, a visiting nurse, and a nurse of a children's in-patient department; to know the peculiarities of a development history (which is the main document of a polyclinic department) and case history (which is the main document of an in-patient department).

Follow-up questions:

1. Main medical documents filled in by a visiting nurse and a doctor in a polyclinic department.
2. Main medical documents filled in by nurses and a doctor in an in-patient department.

Having covered the topic, the student should be able to:

1. Fill in a child's development history and main documents of a children's polyclinic department.
2. Register a patient in a reception ward of an in-patient department, fill in an urgent note on an infectious patient, fill in the passport part of a case history.

Relevant materials:

- The main documentation of a pediatric ward (a list).
- The main documentation of a children's department (a list).
- The scheme of case history.

Medical documentation is approved by Ministry of Health Protection and is used in treatment-and-prophylactic establishments as uniform letterheads.

The Main Documentation of a Pediatric Ward:

1. A child's development history (uniform letterhead 112/y).
2. A prophylactic immunizations card (Ne 063/y).

3. A birth certificate (M 108/y).
4. A regular medical check-ups control card (JST° 030/y).
5. A statistic coupon for final (specified) diagnosis registration (25-2/y).
6. A sanatorium-and-spa card for children and teenagers (JSTs 067/y).
7. A medical certificate for a schoolchild leaving for a sanatorium or a camp (JSTs 079/y).
8. An urgent notification of an infectious disease, food or hard professional poisoning, unusual reaction to immunization (Na 058/y).
 9. A child's health card (M 026/y).
10. An appointment card for hospitalization or consultation at supporting cabinets (JST° 028/y).
 11. An infectious disease registration diary (N° 060/y).
12. A prophylactic immunizations calculation diary (JM° 064/y).
 13. A paramedical nurse work diary (JMs 039/y).
 14. A maternity hospital exchange card (JM° 113/y).
 15. A visiting nurse visits notebook (JST° 118/y).
 16. A prescription (N° 107/y).
17. A sanitary-educational work calculation register (JSTs 038-0/y).

A development history is the main medical document (uniform letterhead M 112/y), opened on the basis of a birth certificate (JSTs 108/y).

The Main Documentation of a Children's Department:

1. A hospital patient's medical card (uniform letterhead No 003/y).
2. An extract from the hospital patient's medical card (JSTs 027/y).
 3. A statistics card of a patient, who left the hospital.
 4. A list of prescriptions.
 5. A list of temperature records.
 6. A register of doctor's prescriptions.
 7. A pediculosis examination registration diary.
 8. A sanitary-educational work calculation register.
 9. A calculation register of procedures at medical rehabilitation cabinets.
 10. A coming off duty register.

A hospital patient's medical card (uniform letterhead 003/y) (a case history) is the main initial medical document filled in for each patient of the in-patient department of a treatment department. It is a legal document; the term of keeping is 25 years.

The medical history or (medical) case history (also called epicrisis – typically discharge summary to referring GP, or anamnesis, especially historically) (often

abbreviated hx or Hx) of a patient is information gained by a physician by asking specific questions, either of the patient or of other people who know the person and can give suitable information (in this case, it is sometimes called heteroanamnesis), with the aim of obtaining information useful in formulating a diagnosis and providing medical care to the patient. The medically relevant complaints reported by the patient or others familiar with the patient are referred to as symptoms, in contrast with clinical signs, which are ascertained by direct examination on the part of medical personnel. Most health encounters will result in some form of history being taken. Medical histories vary in their depth and focus. For example, an ambulance paramedic would typically limit their history to important details, such as name, history of presenting complaint, allergies, etc. In contrast, a psychiatric history is frequently lengthy and in depth, as many details about the patient's life are relevant to formulating a management plan for a psychiatric illness.

The information obtained in this way, together with the physical examination, enables the physician and other health professionals to form a diagnosis and treatment plan. If a diagnosis cannot be made, a provisional diagnosis may be formulated, and other possibilities (the differential diagnoses) may be added, listed in order of likelihood by convention. The treatment plan may then include further investigations to clarify the diagnosis.

A practitioner typically asks questions to obtain the following information about the patient:

- Identification and demographics: name, age, height, weight.
- The "chief complaint (CC)" – the major health problem or concern, and its time course (e.g. chest pain for past 4 hours).
- History of the present illness (HPI) – details about the complaints, enumerated in the CC. (Also often called 'History of presenting complaint' or HPC.)
- Past medical history (PMH) (including major illnesses, any previous surgery/operations (sometimes distinguished as "Past Surgical History" or PSH), any current ongoing illness, e.g. diabetes).
- Review of systems (ROS) Systematic questioning about different organ systems
- Family diseases – especially those relevant to the patient's chief complaint.
- Childhood diseases – this is very important in pediatrics.
- Social history (medicine) – including living arrangements, occupation, marital status, number of children, drug use (including tobacco, alcohol, other recreational drug use), recent foreign travel, and exposure to environmental pathogens through recreational activities or pets.

- Regular and acute medications (including those prescribed by doctors, and others obtained over-the-counter or alternative medicine)
- Allergies – to medications, food, latex, and other environmental factors
- Sexual history, obstetric/gynecological history, and so on, as appropriate.
- Conclusion & closure

History-taking may be *comprehensive history taking* (a fixed and extensive set of questions are asked, as practiced only by health care students such as medical students, physician assistant students, or nurse practitioner students) or *iterative hypothesis testing* (questions are limited and adapted to rule in or out likely diagnoses based on information already obtained, as practiced by busy clinicians). Computerized history-taking could be an integral part of clinical decision support systems.

Tests

1. What documentation is not kept by a district nurse?
 - 1.1. A child's development history.
 - 1.2. A child's individual card.
 - 1.3. A card of prophylactic immunizations.
 - 1.4. A regular medical check-ups control card.
 - 1.5. A list of temperature records.
2. What section is not a part of a child's development history?
 - 2.1. A passport part.
 - 2.2. A note from the maternity hospital.
 - 2.3. Pregnant woman active regular prophylactic and medical attendance records.
 - 2.4. Gynecologist's notes on a woman's health state.
 - 2.5. Newborn active regular prophylactic and medical attendance records.
 - 2.6. Records of child's regular medical check-ups.
3. What section is not a part of a child's case history at an in-patient department?
 - 3.1. A passport part.
 - 3.2. Child's active regular prophylactic and medical attendance records.
 - 3.3. Life anamnesis.
 - 3.4. Disease anamnesis.
 - 3.5. A diary.
 - 3.6. Epicrisis.
4. What document is given to a child on leaving a hospital?

- 4.1. A control card of regular medical check-ups.
 - 4.2. An extract from the hospital patient's medical card.
 - 4.3. A case history.
 - 4.4. A list of medical prescriptions.
 - 4.5. A sanatorium-and-spa card.
5. Which of the given below can be treated as a part of the case history *Anamnesis morbi*?
- 5.1. Parents' state of health.
 - 5.2. Frequency of previous diseases.
 - 5.3. Duration of this disease.
 - 5.4. Complications of previous diseases.
 - 5.5. The last date of attending a school or a pre-school establishment.
6. Who is responsible for the case history?
- 6.1. Head of the department
 - 6.2. Attending medical doctor
 - 6.3. Medical nurse
 - 6.4. Patient
 - 6.5. Polyclinical pediatrician
7. *Anamnesis vitae* doesn't contain an information about:
- 7.1. Pregnancy course of a child's mother
 - 7.2. Allergic reactions
 - 7.3. Reactions on medicamental substances
 - 7.4. Social conditions of child's life
 - 7.5. The start of the disease, its course, dynamics, treatment and its efficiency
8. The term of case history storage makes:
- 8.1. As many time as the patient is treated in the department
 - 8.2. One year
 - 8.3. 25 years
 - 8.4. 50 years
 - 8.5. 10 years
9. The case history title page (passport data) is fulfilled by:
- 9.1. Nurse
 - 9.2. Polyclinical pediatrician
 - 9.3. Attending medical doctor
 - 9.4. Head of the department
10. Which part of the case history is fulfilled in patient discharging from the hospital?
- 10.1. Passport data on the case history title page
 - 10.2. Anamnesis data

- 10.3. Every day diary
- 10.4. Epicrisis
- 10.5. The list of doctor's prescriptions

Correct answers: 1.5; 2.3; 3.2; 4.2; 5.3; 6.2; 7.5; 8.3; 9.1; 10.4.

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Ministry of Health of Ukraine
National O.O. Bogomolets Medical University

“APPROVED”

At the staff meeting of the Department of pediatrics №4

Chief of the Department of Pediatrics №4
Academician, Professor, MD, PhD Maidannyk V.G.
_____ (Signature)

“ _____ ” _____ 2019 y.

Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	ANTROPOMETRIC MEASUREMENTS IN CHILDREN
Course	2
Faculty	Medical №2

Kyiv -2019

ANTROPOMETRIC MEASUREMENTS IN CHILDREN

Topic relevance. Every doctor must know the general approach to antropometric measurements in children. This is an initial step in physical development assessment.

The aim of the lesson: to study the rules of antropometric measurements in children of different age groups.

Follow-up questions:

1. The techniques of weight, height, circumferences measurement in children over 1 year of age.
2. The techniques of weight, height, circumferences measurement in children below 1 year of age.

Having covered the topic, the student should be able to:

3. To measure weight, height, circumferences measurement in children over 1 year of age.
1. To measure weight, height, circumferences measurement in children below 1 year of age.

Relevant materials:

Body weight: Rules of measurement of body weight are:

It is necessary to check the equal horizontal position of the balance and if necessary to adjust it before each weighing of the child.

Children up to 6 months of age are placed supine on a special children's balance. Children more than six months old may be placed on the same balance in a sitting position. If it is not contraindicated according to health conditions, the child should be nude and dressed with a preliminary weighed napkin. The head of the baby must be on the wide part of the balance. From the total weight the weight of the napkin (and other clothes if the child was dressed) must be deducted.

The child of one year age or older should be weighed in a standing position on medical lever weights.

For finding exact weight of the child the above mentioned techniques must be carried out in the morning before the first feeding. after the child has passed urine and stool.

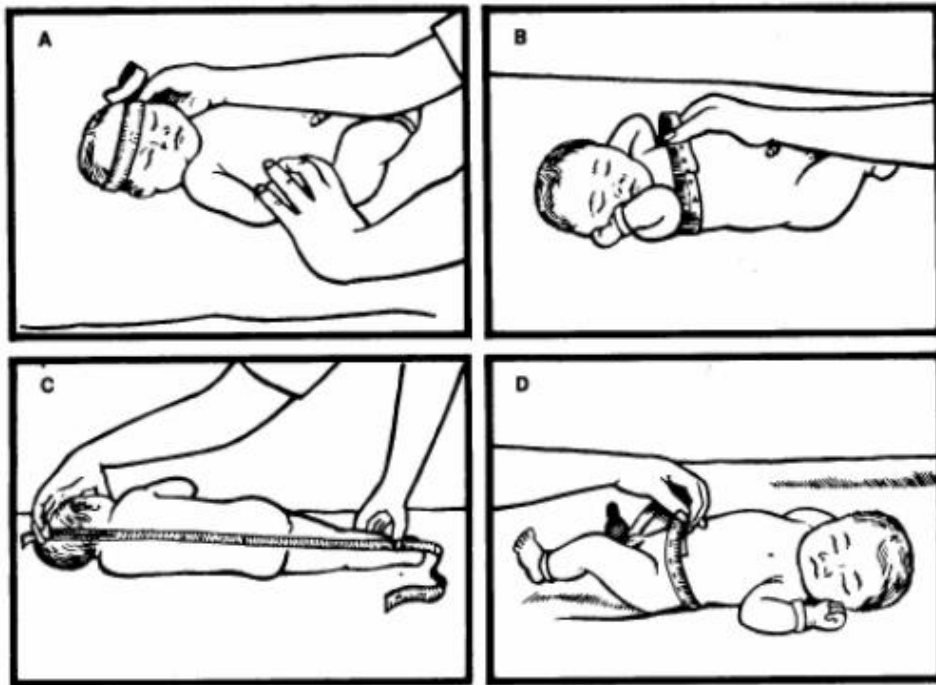
Body length: Rules for the measurement of body length are the following. The child younger than 1 year is placed supine on a horizontal rigid measuring table or infantometer covered with napkin. The head of the child is held near the immovable wall of the measuring table so that the top edge of the external acoustic meatus (or antilobium) and the edge of the lower eyelid of the child make one vertical line. The legs in unbent position should be pressed on the wooden surface. The mobile plank of the measuring table is applied to the soles of the feet. The body length of the child is equal to distance between the immovable wall and the movable plank. The numbers are printed along the edge of the measuring table.

The length (height) of older children is measured in standing position on a standard wooden height measuring rod or stadiometer. The child presses against the vertical rod his occiput, part of his backbone between the scapulas, his sacrum and heels. The head is held in such a position that the lower eyelid and the top edge of external acoustic meatus make a horizontal line. Hands are placed along the trunk, fingers are straight at the joints, palms are held against the thighs. In this position the moveable plate of the measuring rod is placed on the head and the place where it stops specifies the body height of the child.

The height of seriously ill patients of older age is measured individually in the supine position.

The head circumference is measured by a tape-measure. It is put behind on a place of maximal protrusion of occipital tubercle and in front — on superciliary arches.

The chest circumference at the age of breast-feeding is measured in supine position, from the second year of life - in standing position. The tape-measure is put on the back below the angles of scapulae, in the front — above the nipples and pulled approximately by 1 cm. With girls in the puberty period the tape in the front is put above the mammary glands at a level of the fourth rib.



(1) Measure the infants

(a) Length (from top of head to the heel with the leg fully extended).

(b) Head circumference - repeat after molding and caput succedaneum are resolved.

(c) Chest circumference (at the nipple line).

(d) Abdominal circumference

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Ministry of Health of Ukraine
National O.O. Bogomolets Medical University

“APPROVED”

At the staff meeting of the Department of pediatrics №4

Chief of the Department of Pediatrics №4
Academician, Professor, MD, PhD Maidannyk V.G.
_____ (Signature)

“ ____ ” _____ 2019 y.

Methodological recommendations for students

Subject	Pediatrics
Module 1	Pediatrics
Topic	FEEDING OF CHILDREN
Course	3
Faculty	Medical №2

Kyiv-2019

FEEDING OF CHILDREN

Topic relevance. Long-term observations and investigations have proved that breast feeding during the first year of life is the basis for complete physical and mental development of a child, resistance to infectious and somatic diseases forming. At the same time, the obtained data have proved that attempts to feed infants and newborns with milk got from other biological species should become an ecological catastrophe. That is why the study of advantages and principles of breast feeding and measures directed on its support are necessary to increase the state of children's health. On the other hand, one should know the principles of adequate artificial and mixed feeding organization in case if breast feeding is impossible or contraindicated. Correctly organized feeding of children of any age, especially infants and children of first 5 years of life, is a huge basis for their harmonious physical and psychical development and health formation.

The aim of the lesson: to study the main rules of children's rational feeding, its great value for children.

Follow-up questions:

1. Morphological and functional peculiarities of the digestive system of children in age aspect.
2. 10 principles of successful breast feeding by World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF).
3. Peculiarities of artificial feeding organization.
4. Peculiarities of mixed feeding organization.
 5. Peculiarities of prematurely born children feeding.
 6. Feeding of children elder than 1 year.

Having covered the topic, the student should be able to:

1. Make up the daily child's ration for the first year of life in case of breast, artificial and mixed types of feeding.
2. Evaluate the anamnesis data that show the quality of child's feeding, find out mistakes in child's ration and correct them according to the existing rules.
 3. Arrange conditions for artificial feeding in hospital.

Materials that might be helpful:

- Modern ways of breast feeding.
- First year of life children daily need in main nutrients during the breast feeding.

- The algorithm of the child's daily ration estimation.

Breast feeding

The feeding is considered to be the breast one when the child receives only mother's milk during the first year of life or when the breast milk constituent part makes not less than 4/5 of a daily food volume. The breast feeding is provided by the mother's mammary glands in their normal functioning. Mammary glands start their development in elder school age and are finally formed in time of pregnancy.

Lactation disorders semiotics

Lactational crisis

Approximately in 2/3 of all nursing mothers temporary lack of milk is marked on the 2-nd month of life. This physiological sign is called lactational crisis. It is caused by physiological postnatal hormonal changes in mother's organism in this period or mother's exhaustion. In some cases this crisis may occur several times during the whole breast feeding period.

The following measures should be undertaken in order to restore the normal quantity of milk:

- To increase the quantity of feedings
- To apply the child to both breasts in during one feeding
- To feed the child at night in order to stimulate secretion of prolactin
- Avoid giving the child the baby's dummy and drinking through the soother
- To protect mother's physical and psychological rest, provide her with massage, and improve her alimentation.

Hungry crisis is a short termed decrease of milk quantity in the mother's breast on 3, 7 and 12 months of lactation. This is caused by the increased "requests" of the child connected with the most intensive growth during these months. Hungry crisis is a physiological manifestation as well.

Hypogalactia is reduction of the mammary glands secretory function. In this a daily quantity of milk doesn't cover the needs of a child.

The rules of weaning introduction

Weaning is a gradual replacing of the breast milk by cooked food. To the moment of weaning introduction enzymatic system of the intestines is mature enough to digest and assimilate some additive food except of milk.

Necessity of weaning introduction is caused by:

- Gradual reduce of the breast milk in mother's breast

- Insufficient quantity of proteins, carbohydrates and fats in the mother's breast from 6 months of child's life
- Increasing needs of the child's organism in minerals, which can't be covered with the breast milk
- Absence of cellulose, extremely needed for normal functioning of the digestive system, in the breast milk
- Formation of mastification skills during weaning, which contributes to speech apparatus harmonious development
- Habituation of the child to another foodstuff except of the breast milk

Artificial feeding

Artificial (bottle feeding, formula feeding) is a type of infant feeding in which he doesn't receive the breast milk at all or its quantity makes 1/5 and less of the whole daily volume. According to the latest data about 50% of infants in our country are transferred into an artificial feeding at the age of 3 months, more than 70% - at the age of 6 months. The only reason of such a great quantity of artificially fed children is not known.

After 3 months of age undiluted milk may be used.

Main rules of artificial feeding

1. Prepared formula is given to a child from the bottle with a pacifier. It is necessary to hold the bottle atilt in order to avoid air getting to the oral cavity of a child (swallowing of great quantity of air leads in often regurgitations of eaten food and air).
2. For gradual coming of the food pacifier holes should be of such sizes, in which formula flows out with drops but not with a stream.
3. Formula should be sterile and warmed up to 37 – 38°C.
4. In case of necessity prepared formula may be stored no more than 2 hours in room temperature and 24 hours in the fridge.
5. Daily volume of food in artificial feeding corresponds to the age volume in breast feeding.
6. If to adhere to regularity daily quantity of feedings before weaning introduction is one less than in breast feeding and makes 6 from the first month of life. However, hypotrophic, undernourished, premature and weakened kids may be fed 7 – 8 times per day. Free regimen of feeding is the most reasonable. After weaning introduction the feeding regimen is the same in all kinds of feeding and makes 5 times per day.
7. The rules of food supplements given is identical the same in breast feeding.
8. Weaning are introduced at the same terms as in breast feeding.
9. Artificially fed infant must receive more proteins than breast fed ones. Quantitative needs in proteins depend on artificial formulas type as far adapted proteins absorption intensity is higher than unadapted ones besides.

10. Needs in fats and carbohydrates is equal in all types of feeding.

11. Energetic needs in calories don't anyhow depend on the type of feeding.

12. In case of child transferring into artificial feeding it is necessary to give an artificial formula first and then finish with the breast milk. Volume of formula is gradually increasing to complete replacement of milk by formula.

The scheme of preparation of milk formula

1. Choose a clean area to prepare the formula; wash hands carefully.
2. To wash the bottle and teat in hot water with soda, then they are rinsed and boiled during 10 minutes.
3. To boil drink water during 5 minutes and put it in the bottle
4. Cool boiled water till 40-50°C.
5. Put necessary amount of the milk formula into the bottle. Shake it thoroughly.
6. Check the temperature of the milk formula. It should be 37°C (body temperature).

Always start each feeding with a freshly prepared bottle of formula. Do not save unfinished bottle feeds

Mixed feeding

Mixed feeding is a feeding in which a child receives both breast milk and formula during first half year of life.

Possible ratios between noticed types of food are: 2:1, 1:1 and 1:2.

Receiving of an artificial mixture by a child in mixed feeding is called supplementation.

Feeding of children elder than 1 year

Feeding of children at early children's period

Feeding of children from 1 to 3 years of life is transitional period from feeding to adults' alimentation. Comparing with the first year of life early aged children have more developed processes of chewing, swallowing; all groups of salivary glands adjoin the digestion; all esophagus', stomach's and intestines' layers are strengthened; stomach's volume is increased to 300 – 350 ml. Food evacuation from the stomach finishes 4 hours after its intake, in the intestines it is held during 24 – 48 hours.

Tests

1. Child at the age of breast-feeding breathes hardly because of crusts in the nose. What should the nurse do before feeding?

- A. To drop vasoconstrictive drops B. To drop liquid petrolatum
C. To clean the nose with cotton turunda, moisten with liquid petrolatum
D. To irrigate nose with soda solution E. Do nothing

2. To pasteurize the breast milk it should be held on the water bath for
 A. 20 minutes, temperature is 50°C B. 30 minutes, temperature is 50°C
 C. 30 minutes, temperature is 65-75° C D. 1 hour, temperature is 50°C
 E. 1 hour, temperature is 65-75° C
3. The breast milk should be sterilized after storing in fridge during
 A. 3-4 hours B. 6-12 hours C. 12-18 hours D. 18-24 hours E. 24 hours
4. What age patients is diet #16 administered for?
 A. second half of the first year of life B. from 1 till 3 years
 C. from 3 till 5 years D. from 5 till 7 years E. After 7 years
5. How often is the child at the age of 1 month breastfed by day?
 A. 4 times B. 5 times C. 6 times D. 7 times E. on demand or baby-led
6. The first breast feeding after physiological delivery should be carried out during
 A. 30 minutes B 60 minutes C. 90 minutes D. 2hours E. 3 hours
7. To prevent regurgitation after feeding it should be advised
 A. abdomens massage B. child's insertion on abdomen
 C. to hold a child in a vertical position for a few minutes and press a child to the mother's body
 D. to give a pacifier E. thermal procedures on abdomen
8. "Partially breast feeding" is:
 A. feeding only with mother's milk
 B. feeding with mother's milk with additional drinking
 C. feeding with mother's milk and mother's milk substitutions
 D. feeding from a bottle with mother's milk substitutions or with them with one breastfeed immediately after birth.
9. What is the contraindication to breast feeding on the side of the mother?
 A. Acute respiratory infection B. Tobacco smoking
 C. Sore nipples or breasts D. Active untreated tuberculosis
10. Choose the foodstuff for child with overweight:
 A. Sweets B. Beverages C. Seafood D. Grapes E. Cheese
11. What is the correct order of preparation bottles and teats for bottle feeding of infants?
 A. Wash in water with detergent (the bottle brush used only for this); rinse and sterilize by boiling in water; empty the water out of each bottle; fill to the mark with recently boiled and cooled water.
 B. Wash in water with detergent (the bottle brush used only for this); empty the water out of each bottle; rinse and sterilize by boiling in water; fill to the mark with recently boiled and cooled water.

C. Wash in water with detergent (the bottle brush used only for this); rinse and sterilize by boiling in water; empty the water out of each bottle; fill to the mark with hot water.

12. What is the most correct frequency of 1 year healthy child feeding?
A. 4 times a day B. 5 times a day C. 6 times a day D. 7 times a day

Correct answers: 1.C; 2.C; 3.E; 4.B; 5.E; 6.A; 7.C; 8.C; 9.D; 10.C; 11.A;12.B;

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