# MINISTRY OF HEALTH PROTECTION OF UKRAINE ODESSA NATIONAL MEDICAL UNIVERSITY

Faculty of medicine

(faculty name)
Department of Pediatrics № 1  (name of department)  I APPROVE  Acting pro-rector for scientific and pedagogical work prof.  Syitlana KOTYUZHYNSKA  """  2022 y
METHODOLOGICAL RECOMMENDATION SELF-MAKE WORK THE APPLICANT OF HIGHER EDUCATION FROM THE EDUCATIONAL DISCIPLINE  Faculty medical, course 5
Educational discipline - "PEDIATRICS"
(name of the educational discipline)
Approve:  Meeting of the Department of Pediatrics №1  Odessa national medical university
Protocol № _4_ of "17_"102022 y
Head of the department (Mykola ARYAYEV) (signature) (name, surname)

### **Developers:**

(indicate surnames, scientific degrees, scientific titles and positions of developers; all those who teach the specified academic discipline must be among the developers) Associate professors Desyatskaya Y.V., Kaplina L.E., V.S. Biryukov, Varbanets D.A., Senkovskaya L.I, assistants: Pavlova V.V., Usenko D.V., Byshliei N.A., Streltsov M.S., Talashova I.V.

*Note.* In the case of publication of methodological developments as an independent printed work, the academic council of the faculty provides a recommendation for publication in the presence of two reviews, one of which is external — from a reviewer of another institution of higher education.

# The topic of the self-make work class: "TREATMENT OF SICK NEWBORNS AND WRITING THE CASE HISTORY"

**Goal:** The purpose of writing a medical history in the 5th year is to consolidate the knowledge gained by applicants during the study of module 3 "Neonatology". According to the official document, the management of which is provided for in the newborn department, it is advisable to change the name "case history" to "newborn development history".

**Basic concepts:** The academic history of the disease is written according to a certain plan, its writing is preceded by a conversation with the child and his parents, followed by his examination (following the rules of medical ethics and deontology). The diagnosis is based on a number of facts that indicate the presence of abnormalities on the part of organs and systems as a result of the disease.

Three stages are distinguished in the process of diagnostic search:

- 1) clarifying the anamnesis (complaints, medical and life anamnesis are clarified patient);
- 2) physical examination of the child;
- 3) analysis of laboratory-instrumental research results.

During the curation of a newborn, the applicant must master the peculiarities of taking an anamnesis and examining a sick child. Learn to highlight information that has diagnostic value.

#### Plan

# 1. Theoretical questions:

- 1. The structure of the case history scheme.
- 2. Scheme and methods of subjective examination.
- 3. Scheme and methods of objective examination.
- 4. Making a preliminary diagnosis.

- 5. Appointment of additional examination.
- 6. Analysis of laboratory, instrumental research methods.
- 7. Symptoms of the disease of the patient who is supervised.
- 8. Appointment of treatment (prescription of drugs).
- 9. Carrying out dynamic supervision of patients.
- 10. Preparation of medical documentation.
- 11. Recommendations to patients at the end of curation.

### **Topic content:**

# Title page

Name of the educational institution (in full)

Name of the department (in full)

Head of the department (academic title, Full Name / in full)

Teacher of the	group	
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#### **CASE HISTORY**

Patient	/surname, first
name, patronymic, age/	<u> </u>
Clinical diagnosis:	
basic	
complication	
accompanying diseases	
The curator is a applicant of course group_	faculty
/ Full Name of t	he applicant/
Start of curation (date)	
Finish of curation (date)	

#### PASSPORT PART

Full Name mother		
Mother's age		
Who works for		
Home address		
Date and time of birth of the child	gender	

#### II. ANAMNESIS OF LIFE

- 1. OBSTETRICAL AND GYNECOLOGICAL HISTORY. The course of previous pregnancies and childbirth. Presence of miscarriages, abortions, miscarriages, stillbirths in the anamnesis. The presence of developmental defects and other diseases in children. Cause of death in case of neonatal mortality. Acute and chronic gynecological diseases (oophoritis, endocervicitis, colpitis, vulvovaginitis, fibromyoma and others). Sterility. In vitro fertilization.
- **2.** FAMILY AND SOCIAL HISTORY. Age and health of family members. Hereditary diseases in the family. Education. Harmful habits.
- *3. ANTENATAL HISTORY*(the course of this pregnancy) The presence of pregnancy complications with an indication of the date of their occurrence: threat of termination of pregnancy, preeclampsia, fetoplacental insufficiency, Rh- or ABO sensitization, polyhydramnios or oligohydramnios).

Extragenital diseases: anemia, diseases of the cardiovascular, urinary, nervous systems, gastrointestinal tract, endocrinopathy. Perinatal infections: tuberculosis, syphilis, HIV infection, cytomegalovirus, herpes infection, chlamydia and others. Acute infectious diseases or exacerbation of latent infection, especially of the urogenital system. Bacterial vaginosis. Hyperthermia during pregnancy. Examination for the presence of TORCH infection (ELISA, PCR). Pharmacotherapy during pregnancy. In the case of preterm birth, it is indicated whether the woman received RDS prophylaxis with steroids or mucosolvan. Results of prenatal diagnosis of hereditary and congenital pathology.

- 4. INTRANATAL ANAMNESIS. Term and nature of childbirth. Indications are indicated for caesarean section. Duration of the I, II periods of childbirth and the waterless interval, the nature and amount of amniotic fluid. Peculiarities of the course of childbirth the presence of anomalies of labor activity and stimulation of labor (primary or secondary weakness of labor activity, protracted, rapid labor, use of oxytocin, vacuum extractor, exit or cavity obstetric forceps, etc.), detachment of the placenta (volume of blood loss). Presentation. The presence of umbilical cord wrapping.
- 5. CONDITION OF THE CHILD AT BIRTH. Full-term or premature child, its gender. Weight and height (correspondence to gestational age according to percentile tables). Head circumference and chest circumference (according to gestational age). Apgar score. Primary resuscitation (sanitation, oxygen inhalation, ventilation with an Ambu bag, tracheal intubation). Evaluation according to the scale

of Downes or Silverman (in case of respiratory distress in full-term or premature children). Primary conclusion.

**6. BREASTFEEDING.** Means of enteral feeding (breast, from a cup, through a probe). The term of attachment to the mother's breast. Sufficient lactation. A mixture that is used in case of hypogalactia in the mother. Calculation of food. Mode of feeding.

#### 7. VACCINATION(term)

Vaccination against hepatitis B.

Vaccination against tuberculosis.

#### III. DISEASE HISTORY

The term of the appearance of the first signs of the disease. Management tactics and treatment methods (transfer to the neonatal intensive care unit, incubator mode, total parenteral feeding, artificial lung ventilation, replacement blood transfusion, and others). Dynamics of the child's condition.

#### IV. DATA OF OBJECTIVE PATIENT EXAMINATION

#### External review:

General condition of the child: satisfactory, medium severity, severe; what leading syndromes are caused by. Temperature. Reaction to the review. The nature of the cry. Spontaneous motor activity. Physical development. Proportionality of the body. Loss of body weight (abs., %) - compliance with the norm. Dynamics of body weight over the last day.

#### Skin and subcutaneous tissue.

Color (erythema, cyanosis, pallor, grayish tint, jaundice). Rashes. Milia. Telangiectasias. Mongoloid spots. Toxic erythema. Petechiae. Hemorrhages. Elasticity, moisture, turgor. Pastiness, edema. The symptom of a white spot is checked: in a healthy child, after pressing on soft tissues, the spot disappears after 3 seconds (retention of the spot for more than 3 seconds indicates a violation of microcirculation).

Thickness and uniformity of distribution of the subcutaneous fat layer.

Examination of the head. Head shape (brachiocephalic, dolichocephalic). Head circumference. The size and condition of the large and small occiput. The condition of the cranial sutures is assessed (the sagittal suture may be open no more than 3 mm). The presence and size of a birth tumor or cephalohematoma. Face (symmetry, signs of dysmorphia). Eyes (developmental abnormalities, hemorrhages in the sclera, color of the sclera, symmetry and size of the pupils, manifestations of conjunctivitis). Oral cavity (evaluate the color of the mucous membrane, the integrity of the palate, the presence of a rash). External organs of hearing: examine the shape and position of the auricles, the change of which is observed in dysmorphic syndromes.

**Examination of mucous membranes:** condition, color, shape of the palate, size of the tongue, condition of the alveolar processes, frenulum of the tongue

*Neck:* during the examination, attention is paid to the length, presence or absence of additional folds, cysts, fistulas, torticollis.

**Bone system:** determine the integrity of the clavicles, conduct an examination of the limbs, spine, joints. The shape of the limbs (presence of clubfoot), the number of fingers on both sides of the hands and feet. The absence of dislocation and dysplasia of the hips in the large hip joints is checked: when the hip joints are extended, the extension is complete, the symptom of "clicking" is absent. When examining the back, pay attention to the possible presence of a spinal hernia.

*Chest*: shape (normally cylindrical, the lower aperture is turned, the position of the ribs is symmetrical and close to horizontal).

**Lungs:** Character, rhythm and frequency of breathing (normally 30-60 per 1 minute). Nasal breathing, the presence of discharge from the nasal passages. The presence of signs of respiratory failure. Evaluation according to the scale of Downes or Silverman. Percussion: the nature of the percussion sound over the lungs. Auscultation: the nature of breathing during comparative auscultation of the lungs. Localization, nature, sonority, dynamics of wheezing.

**Heart.** The limits of relative cardiac dullness are determined (normally the upper limit is the II rib, the right is the right parasternal line, the left is 1.5-2 cm outward from the mid-clavicular line). Auscultation of the heart (character of tones, presence of noises is determined). Heart rate (at rest is on average 100-160 in 1 minute).

Stomach. The shape of the abdomen, participation in the act of breathing. Color of the skin of the anterior abdominal wall. Examination of the umbilical wound (size, condition of the skin around the wound and the umbilical ring, the nature of the rate of its healing). Palpation of the liver (normally it protrudes from - below the edge of the right costal arch no more than 2 cm along the mid-clavicular line). The edge of the spleen is not normally palpable or can be palpated under the costal arch.

*Genitals*. They determine the formation of the genitals according to the female or male type. In boys, the presence of phimosis is physiological. Full-term testicles are palpable in the scrotum. In full-term girls, the labia majora cover the labia minora. Urinary system. Deep palpation of the kidneys, quantity and color of urine, diuresis.

*Neurological status* the newborn is evaluated according to the following indicators: - general activity; - spontaneous motor activity; - the nature of the cry; - the presence of facial asymmetry; - condition of the pupils; - eye symptoms; - muscle tone; - periosteal reflexes; - vestibular reflexes; - the presence of tremors; - the presence of a court; - apnea, etc. Checking the basic unconditional (physiological reflexes) of newborns: - sucking; - swallowing; search; proboscis; Babkin's handmouth reflex; grasping reflex; Robinson's reflex; Moro reflex; protective reflex; crawling reflex (Bauer); automatic walking reflex; Galant's reflex; Perez's reflex.

#### V. PRELIMINARY DIAGNOSIS

On the basis of life and disease anamnesis data, data of an objective examination of the patient (selecting pathognomonic symptoms and syndromes), the preliminary diagnosis is substantiated.

#### VI. PATIENT EXAMINATION PLAN

In addition to general clinical tests (clinical blood test, general urinalysis), modern laboratory and instrumental research methods are prescribed to confirm the diagnosis.

The examination plan may include biochemical, immunological, and serological blood tests (determination of certain indicators), cytological and bacteriological studies, instrumental examinations (ECG, ultrasound, NSG, X-ray, CT, MRI, etc.), as well as consultations of specialists of a certain profile, taking into account the nature of the pathology.

#### VII. SURVEY RESULTS

Results of laboratory and instrumental studies, their assessment, general conclusion. Advisory opinions of specialists.

#### VIII. DIFFERENTIAL DIAGNOSTICS

Differentiation is carried out with diseases that have common symptoms, comparing the patient's symptoms and the data of additional examinations with similar ones in other diseases. When comparing clinical and laboratory data, differences are noted.

#### IX. CLINICAL DIAGNOSIS

On the basis of the previous diagnosis (data from anamnesis, clinical manifestations), data from additional examination methods, advisory conclusions and results of differential diagnosis, the clinical diagnosis is substantiated (in accordance with the modern classification of diseases): - basic; - complications; - accompanying diseases.

#### X. ETIOLOGY AND PATHOGENESIS

The issue of etiology and pathogenesis of the main disease is important for the justification of rational treatment. It is necessary to note what specific etiological factor could have caused the disease in this case, what conditions contributed to its occurrence, how changes may develop in the future.

#### XI. TREATMENT

Reasonable treatment (etiotropic, pathogenetic, symptomatic) involves: regimen, nutrition (enteral or parenteral), drug therapy (doses, routes and frequency of drug administration, prescriptions for basic drugs). The treatment prescribed by the curator does not necessarily coincide with the one the patient receives in the clinic.

#### XII. DIARY

The diary records: the day of the newborn's life, body temperature, heart rate, BP, blood pressure, oxygen saturation, body weight, daily weight dynamics, regime (incubator/bed), means, volume and frequency of enteral feeding, presence of stasis, residue, its the nature, frequency and presence of regurgitation, vomiting, frequency and nature of bowel movements, diuresis for the previous day, assess the severity of the condition and the dynamics of the disease (due to which the patient's condition improved or worsened); describe the objective status (state and changes in the main and affected systems); medical prescriptions, as well as food calculations, are substantiated and adjusted.

An observation sheet is drawn up (body temperature curve, heart rate, BP, blood pressure, diuresis, body weight of the sick child, frequency and nature of bowel movements, presence of vomiting).

#### XIII. EPICRISUS

Epicrisis - a concise summary of the medical history (development) of a newborn, which should include:

- surname, first name, patronymic, age of the mother of the newborn;
- date of birth of the child;
- the most significant moments from the anamnesis of life, disease, main signs (preferably in the form of syndromes) with a mandatory presentation of the examination results;
  - peculiarities of the course of the disease in this child;
  - detailed clinical diagnosis;
  - performed treatment with an assessment of its effectiveness;
  - prognosis regarding the child's life and future health;
- recommendations (additional examination, treatment, dispensary observation).

**Note.** Depending on the complexity and specificity of the educational topic, the availability of modern educational and scientific literature, this section can be presented with different levels of detail (the right to choose the form of displaying

the content remains with the department):

#### **Questions for self-control:**

- 1. The structure of the medical history scheme.
- 2. Scheme and methods of subjective examination.
- 3. Scheme and methods of objective examination.
- 4. Making a preliminary diagnosis.
- 5. Appointment of additional examination.
- 6. Analysis of laboratory, instrumental research methods.
- 7. Symptoms of the patient being monitored.
- 8. Appointment of treatment (prescription of drugs).
- 9. Carrying out dynamic supervision of patients.
- 10. Preparation of medical documentation.
- 11. Recommendations to patients at the end of curation.

# Approximate tasks for processing the theoretical material:

- Compile a dictionary of basic concepts on the topic.
- Fill out an orientation card for independent training of a higher education seeker using literature on the topic (need to include the orientation card in methodical development is decided by the department staff).

# 2. Practical works (tasks) to be performed:

The scheme of the history of the development of a newborn in the 5th year consists of the following sections: 1) passport part; 2) life anamnesis (obstetrical and gynecological anamnesis of the mother, family and social anamnesis, antenatal and intranatal anamnesis, condition of the child at birth, feeding, vaccination); 3) medical history; 4) data of an objective examination of the patient; 5) preliminary diagnosis and its justification; 6) patient examination plan; 7) examination results; 8) differential diagnosis; 9) clinical diagnosis and its justification; 10) etiology and pathogenesis; 11) treatment; 12) diaries; 13) epicrisis, forecast, recommendations; 14) used literature.

#### 3. Test tasks for self-control:

*Note*. It is proposed to use test tasks (for higher education applicants who are

to participate in the current yearin licensure test exams, it is more expedient to use tests of the "Step" type) and tests compiled by departments for rector's control.

# 4. Individual tasks for applicants of higher education on the topic:

- 1. The structure of the medical history scheme.
- 2. Scheme and methods of subjective examination.
- 3. Scheme and methods of objective examination.
- 4. Making a preliminary diagnosis.
- 5. Appointment of additional examination.
- 6. Analysis of laboratory, instrumental research methods.
- 7. Symptoms of the patient being monitored.
- 8. Appointment of treatment (prescription of drugs).
- 9. Carrying out dynamic supervision of patients.
- 10. Preparation of medical documentation.
- 11. Recommendations to patients at the end of curation.

# 5. List of recommended literature (main, additional, electronic information resources):

#### The main one:

- 1. Pediatrics for Medical Applicants / ed. by D. Bernstein, S. Shelov. 3rd ed. Lippincott Williams & Wilkins, 2012. 738 p.
- **2.** The GALE Encyclopedia of Children's Health: Infancy Through Adolescence / ed. by JL Longe. 2th ed. Gale Group, 2011. 2623 p.
- 3. Integrative Pediatrics / ed. by TP Culbert, K. Olness. Oxford University Press, 2010. 718 p.
- **4.** Nelson textbook of pediatrics, 2 volume set. Edition: 21st, 2019. PDF format.

http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/

- **5.** Neonatology: A Practical Approach to Neonatal Diseases / ed. by G. Buonocore et al. Springer, 2012. 1376 p.
- 6. Avery's Neonatology: Pathophysiology and Management of the Newborn Seventh Edition / by Mhairi G. MacDonald MBChB DCH FRCPE FAAP, Mary M.K. Seshia MBChB DCH FRCPE FRCPCH.-Sep 4, 2015.
- **7.** Handbook: IMCI integrated management of childhood illness. Electronic resource:

https://apps.who.int/iris/bitstream/handle/10665/42939/9241546441.pdf?sequence=1&isAllowed=y

#### **Electronic information resources:**

- 1. https://www.pediatrics.od.ua/
- 2. http://moz.gov.ua
- 3. https://moz.gov.ua/article/ministry-mandates/nakaz-moz-ukraini-vid-14092021--1945-pro-zatverdzhennja-unifikovanogo-klinichnogo-protokolu-pervinnoi-medichnoi-dopomogi-integrovane-vedennja-hvorob -ditjachogo-viku
- **4.** http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/
- 5. https://www.ama-assn.org/about
- 6. https://www.facebook.com/AmericanMedicalAssociation/
- 7. www.oapn.od.ua
- 8. www.who.int
- 9. https://www.dec.gov.ua/mtd/home/
- 10.https://www.dec.gov.ua/mtd/home/
- 11.http://bma.org.uk
- 12.http://www.gmc-uk.org
- 13.http://www.bundesaerztekammer.de
- 14.International Pediatric Association (IPA)
  https://www.who.int/workforcealliance/members\_partners/member\_list/ipa/en/