

## PREFACE

Case history – an important medical document which is filled about every in-patient. It has a legal and financial importance. That is why a case history needs to be written so that it can present the picture of the disease, its development, progress and the accuracy of the diagnosis.

A student's case history contains the same sections as the official case history, but is more detailed. It is necessary to teach students to inspect a patient fully and methodically and to master the basic rules of drafting a case history. It contributes in forming their medical thought. Mudrov M.Y. wrote: «A case history must give the exact picture of the development and progress of diseases. A doctor must write it conscientiously, like an artist who represents the least lines and shades on the face of a man».

In the process of examination of a patient and writing of his case history, it is important to use the principles of deontology, it is necessary to instill an atmosphere of socializing with the patient and his parents in a spirit of mutual trust and respect. The examination of a child, unlike that of an adult, has its own features. Firstly, a child, especially a baby and that of an early age, is in the care of the parents or relatives. That is why the contact of the doctor with parents in most cases is a primary part of establishment of contact with the child. Secondly, a number of constitutional and psychological features of children of different ages necessitate the different approaches to the examination of the child. Thirdly, the anatomic-physiological features of the systems and organs necessitate different approaches to the subjective and objective examination of children. The structure of data of anamnesis' and objective examination must maximally represent the estimation of physical and neuro-psychological development, and also depict the possible latent deviations or latent diseases.

Careless attitude towards the process of examination and carelessly spoken words can dissuade the patient causing the symptoms of iatrogenic disease.

### METHOD OF PHYSICAL EXAMINATION OF PATIENTS

During the period of studies at the department of propaedeutics of children's diseases, all the students of 3rd course independently (under the lecturer's supervision) treat patients. Three classes are given for this treatment.

During these lessons, students master the method of examination of patients, adhering to the certain sequence.

Firstly, students ask patients questions, going into details and estimate the complaints, anamnesis, conduct an objective examination and only after all this progresses to the study of laboratory, instrumental researches and functional state of separate organs and systems. During objective examination of the cardio-vascular

system and organs of the abdominal cavity, we recommend the adherence to the accepted sequence by V.P.Obraztsov and M.D.Strazhesko.

Great attention is paid to differential diagnostics conducted by students, as it is one of the important steps instrumental in forming the clinical thought of a future doctor.

The period of treatment is distributed as such: in the first class the clinical examination of patients and acquaintance with the results of additional methods of researches that were conducted. In the next class students observe the progress of the patient's disease and prepare reports.

All students give a report of the results of the examination of patients, make conclusions, and make a differential diagnosis. Lecturers make the proper corrections at final registration of the case history. The dynamics of the progression of the disease for period of treatment is represented in journals. At the end of treatment, students give the written case history for examination to the lecturer. After positive estimation of the case history, the student defends it before the head of the department or an associate professor.

A case history, which shows the importance of the independent work of the doctor at the patient's bedside, represents not only the level of the special preparation of the student and his knowledge of the basic clinical notions, but also his intellect and skillfulness.

## **Practical class 1**

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THEME: physical examination of patients (1).

Aim of practical class: - to be able to recognize and estimate the basic symptoms and syndromes in the diagnostics of children's diseases.

OBJECTIVES:

A student must know:

1. The anamnesis of the patient's disease.
2. The onset and the progress of the disease.
3. The instrumental and laboratory methods of diagnostics of the disease.

A student must estimate:

1. Received anamnesis which helps confirm the presence of disease.
2. Received data of the subjective examination of the patient.
3. Received data of the objective examination of the patient.

4. Results of laboratory and instrumental methods of examination.

A student must be able:

1. To define the exposed symptoms and confirm the leading syndromes of a disease.
2. To make up a plan of laboratory-instrumental examination of the patient.
3. To conduct a differential diagnostics of diseases with other similar symptoms diagnosed in the patient.
4. To establish a leading syndrome (syndromes).

The Program of student's preparation:

1. To study the patient's complaints.
2. To know the anamnesis of the disease.
3. To study the diagnostic values of laboratory-instrumental methods of examination.
4. To know the basic diagnostic criteria of the disease.

Plan of conducting the class

Every student gets a patient for treatment, questions him, his parents according to the chart of case history. During the examination, the student estimates the state of consciousness, conducts research of systems of organs (gastrointestinal tract, urinary system, locomotor apparatus etc.). The student must then analyze the symptoms exposed during the examination, grouping them into syndromes and make initial conclusions about the character of pathology of the patient. Later on he must write the plan of laboratory methods and examinations which must be conducted for confirmation of the diagnosis.

## **Practical class 2**

THEME: Treatment of the patient (2): Writing of case history.

Aim: – Ability to design an educational case history.

OBJECTIVES:

A student must know:

1. The results of questioning the patient.
2. The results of the physical methods of examination of the patient.
3. The results of the additional methods of examination, necessary for clarification of the diagnosis.

A student must estimate the:

1. Observable changes in the patient which he treats.
2. Results of additional laboratory and instrumental methods of research.
3. Observable syndromes for the confirmation of the disease.

A student must be able:

1. To design results obtained during the examination as an educational case history.
2. To confirm the leading syndrome and work out a plan of patient's examination.
3. To enter the results of the instrumental, laboratory and other methods of research in the case history.
4. To write journals.

Plan of conducting the class:

A student conducts the repeated examination of his patient, during which it is necessary to find out the signs which confirm the changes in the progress of the disease (it needs to be written down in a journal); analysis of physical, laboratory and special methods of examination; establish a leading syndrome; and indicate the complications and accompanying pathology.

All students take part in the discussion of these questions.

**Practical class 3**

THEME: Analysis of students' case histories.

Purpose - to be able to establish the basic syndromes of diseases, clinical diagnosis, conduct differential diagnostics.

OBJECTIVES

A student must know:

1. The methods of the semiotics of the patient's disease.
2. The normal age-old indices of the state of the patient.
3. The additional laboratory and instrumental methods of researches which must be conducted on the patient.

A student must estimate:

1. The changes discovered during the patient's examination.
2. The results of the additional methods of examination.

A student must be able:

1. To group the symptoms into syndromes and to establish the leading syndromes of the disease.
2. To conduct a differential diagnostics with other diseases which have a similar clinical picture.
3. To establish the principles of feeding and care of the patient.

The program for student's preparation:

1. To learn the diagnostic value of symptoms discovered during patient's examination.
2. To establish the leading syndrome and clinical diagnosis of the patient's disease.
3. To learn the methods of caring for patients.

Plan of conducting the class:

At the beginning of the class, the student repeats the examination of the patient, marks changes in his objective status, gets acquainted with the new additional methods of examination, interprets them and notes the discovered changes in a journal which must represent the dynamics of the disease. Then the student makes the conclusions and draws the plan of concrete medical and prophylactic measures.

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### CHART OF EDUCATIONAL CASE HISTORY

(For the third year students)

Last name, name, patronymic of patient, age, date of birth:-----

Clinical diagnosis:

Basic diagnosis -----

Complication \_\_\_\_\_

Concomitant disease \_\_\_\_\_

Curator: Student

Course of study group N

Beginning of treatment:

Completion of treatment:

Estimation for case history writing:

Estimation for case history defense:

## 1. Questioning of patient (*Interrogatio*)

### 1.1. General information about the patient (*Praefacio*)

Last name, name, patronymic \_\_\_\_\_

Age \_\_\_\_\_

Place of residence \_\_\_\_\_

Children establishment which previously visited  
\_\_\_\_\_

Date of hospitalization \_\_\_\_\_

Who referred the child \_\_\_\_\_

Diagnosis of the institution which referred the patient \_\_\_\_\_

### 1.2. Complaints of the patient (*Molestia of aegroti, Querellae of aegroti*) on the day of consultation.

All complaints of the parents which are specific, fixed, detailed. It is necessary to find out basic and secondary complaints and specify, when and in what sequence they occurred, grouping them into symptoms. When taking the complaints, it is necessary to find out the presence or absence of disorders of all organs and systems: heart, lungs, gastrointestinal tract and locomotor apparatus; to specify the character of the symptoms of the diseases which were discovered during questioning, (For example, to find out localization and irradiation, intensity, firmness, character of pain); and to group the secondary complaints in subjective status.

### 1.3. A subjective examination by organs and systems (*Status praesens subjectivus*)

Skin and mucous membranes. Discolorations of skin (pale, red, icteric, cyanotic) which have the limited (local) or diffuse character. Presence of rash: primary and secondary elements. Was there a similar rash on the child before, and what was it linked with (to determine the presence of food, domestic or other allergens), was the rash accompanied by hyperaemia, where was its initial localization, how did it spread or change? Discolorations of mucous membranes (including the sclera): pale, red, cyanotic, icteric. Presence of primary or secondary elements of rash, their localization, pain. Was the rash accompanied by hyperthermia? The presence of pigmentation on the mucus membranes of the mouth cavity, hard and soft palate. State of the gums (slight swelling, hyperemia, pallor, hemorrhages). Change of the mucus membrane of the tongue: presence of pigments (white, grey yellow), slight swelling, pain, increased moisture. Change of properties of hairs (local or total baldness, deformation of structure of hair, decrease of its durability and elasticity). Appearance of surplus hair on the body. Change of the properties of nails (fragility, bulge and discoloration). A decrease or increase of fat deposits in the subcutaneous tissue, \*\*\*compression of subcutaneous basis (as arose up a long ago, whether there was an increase of temperature).\*\*\*

Lymphatic system. Pain in the regions peripheral lymphatic nodes, inflammation in these areas, changes of skin coverings above them.

Skeleton: Pains in bones and joints (localization, character, intensity of pain, sharp, dull, aching, pulsative or permanent). Factors which are instrumental in the origin of pain (\*\*\*) hurried, a step lasted, (\*\*\*) change of position of body e.t.c). When it occurs (in the day-time, at night, seasonally). What medicines/treatment relieve the pain (warmth, physical rest, taking medicines e.t.c). constraint in joints (where, when it occurs, and its duration). Deformations of joints (Its types). Limitation of movements in joints (related to pain, edema, deformation or constraint).

Muscular system. Muscular weakness. Presence of asymmetry of muscles, pain, consolidation in muscles. Tremor of extremities. Cramps.

Cardiovascular system. Pain in the area of the heart, behind the sternum (exact localization, character, intensity, duration, irradiation, and time of origin). Palpitation. Head ache (in the occipital region). Dizziness. \*\*\*Twinkling is before eyes\*\*\*. Noise in the ears. Signs of insufficiency of blood circulation: dyspnoea, fatigue, change of appetite, anorexia, deceleration of growth. Lack of breath - asthmatic attacks.

Respiratory system. Cough. Dry, attack-like, obtrusive, "barking", coughing, solorous. Moist cough. Morning, periodic, accompanied by vomit, sputum of white, green, yellow-green color, expectoration with ease, difficulty, presence of admixtures of blood, viscous or foamy. Blood spitting. Noisy breathing in sleep and at vigil. dyspnoe (inspiratory, expiratory, mixed). Difficulty in breathing. dyspnoe after physical exertion or at rest. Cyanosis of the nasolabial triangle. Pain in the thorax: character, localization, increases at breathing, change of position, at pressure (palpation). Change of voice: hoarse, loss of ringing, "absence". Deformation of the thorax. Cold. Excretions are mycoid, muco-purulent, bloody. Nose-bleeds. The nasal breathing is difficult. Unpleasant smell from the mouth and nose: stinking, sweetish.

Digestive system. For the children of breast-feeding age is lazy suction, rejection of breasts, anxiety of the child during feeding; belching (multipleness, character, amount), vomiting (connection with consumption of a meal, character of vomits); enlargement of stomach; frequency of emptying, character of excrement (color, consistency, smell, presence of pathological admixtures), pathological increase in weight. For the children of senior age - disorder of appetite, \*\*\*return of advantage a certain meal, seasonings in a company,\*\*\* heartburn, belch, nausea, vomit (connection with a meal, character), pains at mastication, swallowing, stomach-aches (localization, character of pain, copulas with a meal, physical exertion, irradiation causing it), frequency of emptying and character of excrement.



Urinary system. Pains in the lumbar area. Character of pain (aching, sharp, periodic), duration, period of origin, what the origin are linked with (physical exertion, super cooling, act of urination). Appearance of edema (in the morning, during the day), localization (round the eyes, on lower extremities, in the lumbar area, on the stomach). Change of frequency of urination (frequent and insignificant urination), pain at urination. Change of volume of diuresis (decrease or increase). Disorder of correlation is between day and night diuresis. Day or night incontinence of urine (period, duration).

Endocrine system. Excitability, irritability, uneasy sleep, is increased, sweating, emotional instability is increased, palpitation, difficulty at swallowing and breathing. Disorder of growth. Lag in physical development. increased or reduced appetite. Thirst, frequency of urination, itch in the private parts. Nausea, vomiting, pain, in bones, muscles, and somnolence.

Nervous system. behaviour of patient (quiet, nervous, irritable, whining, indifferent e.t.c). Curiosity to the toys, other children, ability to concentrate. Mood - quiet, dull e.t.c. Sharp changes of mood. Sleep - normal, sufficient, broken (sensible, with fears). Falling asleep easily or not. Daily sleep. Somnolence, yawning, insomnia. Head aches : (character, frequency, duration, localization, relation to other factors). Dizziness, noises in the head, fainting fit. Paresis, paralysis, muscular weakness, disorder of coordination. Memory (degree of deterioration, amnesia). Language: (degree of delay in development of language in comparison with the children of the same the age, dysarthria, stammer, agraphia e.t.c). Cramps, spasms of muscles. Nausea, vomiting. Vegetative system: cold extremities, "ants", "goose" skin. Pains in muscles, bones, joints. Weakness, numbness in extremities. At emotional exertion is hyperemia, pallor, itch. Changes in vision, hearing, sensitivity (weakening, absence). Changes of taste sense.

#### **1.4. Anamnesis of disease (*Anamnesis morbi*)**

This case history must represent, when and under what conditions the first signs of the disease began and how the beginning was (sharp, gradual). To describe the initial symptoms of the disease and their dynamics in a chronologic sequence. It is necessary to collect information about previous treatments, where, when, what methods of treatment were used and their efficiency.

To find out definite factors responsible for the deterioration of the state of patient's health, in this regards, the patient is hospitalized. progress of the disease during the child's stay in the clinic from the moment of admission to the day, when treatment begins (as dynamic epicrisis).

Conclusion after anamnesis of the disease: deduction about the change of separate organs and systems, selection of features of course of the disease.

#### **1.5. Anamnesis of life (*Anamnesis vitae*)**

Obstetric anamnesis (for children before 3 years of age). Is he the first child and from what pregnancy of a mother is he? go through the period of this pregnancy: somatic, gynecological pathology of the mother, influence of unfavorable factors during the course of the pregnancy (infection, use of medications, professional harmfulness, physical and psychological traumas, insufficient feeding e.t.c), toxicosis of the pregnancy and threat of terminating the pregnancy. To give information about the number of abortions, medical abortions, dead children, number and character of the course of previous pregnancies. *Conclusion is about the period of \*\*\*aidd<sup>3</sup>Oiuiddidiidi\*\*\* development* Is it the first birth or not? Description of births: premature, protracted, swift, with medicinal stimulation. Caesarian section, imposition of obstetric tongs, Hand removal of the placenta layer by layer.

Neonatal Period. Estimation of new-born by the scale of Apgar, physical indices at birth, signs of immaturity, under maturity, maturity. Description of the transitional states of neonatal period. A physiological loss of the weight of the new-born and the dynamics of its renewal. Feeding: first connection to the breasts, volume and character of feeding. Features of lactation. Time of falling off of the umbilical cord remains, and the state of the umbilical wound. Disease of neonatal period: immunological incompatibility of blood after Rhesus factor or groups of antigens, skin disease, organs of respiration, digestive system, septic diseases e.t.c).

#### Conclusion about the development of the child in the neonatal period.

Features of feeding of the child are from the moment of birth. The type of feeding – for the first five months - natural, artificial or mixed, feeding presently (for a child to 1 year).

During the period of natural breast feeding to note the time of feeding of the child, activity of suction, observance of the technique of the breast feeding. At mixed feeding, to note, the additional food, from what age, amount and method of introduction of additional food. What measures were conducted for prevention of hypogalactia of the mother? At artificial feeding to note, from what age and what food was given to the child, in what amount and in what sequence, the interval between feedings (regular or irregular feeding), a night interruption for feeding? Did the child get juices (what type and from what age), vitamin D (from what age, in what amount)? When did the child begin to get additional forage, the amount, sequence of introduction, portable? Time of separation from breasts. Features of taste and appetite. What was the feeding after a year, favorites food? Feeding of the child prior to the onset of the disease (for children up to a year to name the menu of the child before the disease). Impossibility of the use of separate products.

#### Conclusion about the rational feeding of child.

Physical development of children by age periods.

Multiplying the weight and length of the body on the first year of life (per months) and after the first year. Weight and length of body at present. Age and

sequence of eruption teeth, number in the first year and in the moment of examination.

Psychomotor development of the child is after age-old periods. In what age did the child begin to fix the head, sit down, crawl, to stand, to walk, what development of future movement function?

Development of language: when he began to pronounce compositions, words spoken by the child in this period, character of language, words. When did he begin to know the mother, fix a look, smile, to react to sounds and toys? When did he begin to watch after a toy, return a \*\*\*chairman\*\*\* to a sound? Behavior of the child at home and in a collective group. Studying at school (progress and difficulties). Sleep, its features and duration.

### Conclusion about the physical and psychomotor development of the child.

Prophylactic vaccinations: against tuberculosis (BCG), poliomyelitis, stupor, whooping-cough, diphtheria, measles (calendar of vaccination of the child). Features of the after vaccination period. Results of tuberculin tests (Mantoux test), when was the last time?

What diseases did the child have previously? When and what diseases occurred, and the number of infectious; traumas, surgical interferences? Features of the course of the disease, complications, conducted treatment. Previous disease of child, which preceded the current disease. Presence of diathesis.

Allergic anamnesis. Does the patient, his parents, close and distant relatives have any allergy? Was there any toxic and allergic reactions to medicines (taking into account antibiotics) or prophylactic vaccinations.? Was a hyperimmune serum (what, when) entered, if used - was there a reaction on introduction? Are there possible everyday factors or materials causing allergy?

Genetic anamnesis. The state of the genealogical tree (to genealogy) is represented graphically in a case history within the boundary of four generations, beginning from the sick child to the grandfathers and grandmothers for vertical lines and to the brothers and sisters for horizontal lines. How many children are in families and the state of their health: if they are dead, what was the cause of death?

Social anamnesis. Age of parents, state of their health, and also relatives for the lines of mother and father (tuberculosis, syphilis, toxoplasmosis, alcoholism, psychical, nervous, endocrine and allergic diseases and other). State of the health of the people the child communicates with. Harmful habits in the family (smoking, abuse of alcohol, tea, coffee). To find out a short medical biography in a chronologic order of the patient or of his relatives.

Terms of residence (way of life, feeding). Does the child attend a preschool or a school? Who looks after the child at home? Does the child have a separate room,

corner, separate bed? Is the child provided with linen, clothes for each season? \*\*\*Does the mode of day stick to?\*\*\* What duration of walks and sleep? What is the physical and educational exertion for the child? Does he adhere to a diet?

Epidemiology anamnesis. It is necessary to find out the presence of contact with infectious patients, whether with a patient with a clinically similar disease. What is the epidemiological surroundings in the child's establishment which visited by this child? State of health of people the child communicates with. Observance of sanitary-hygienic skills. Terms of feeding. The presence in anamnesis of hemotransfusion and other parenteral interferences and the duration of the latent period of the parenteral passed infectious diseases (viral hepatitis, infectious mononucleosis, cytomegalic infection and other). What infectious diseases did the mother have during pregnancy, taking into account subclinical and asymptomatic forms.

In the end the doctor draws *conclusion from anamnesis*, in which estimations of the dynamics of development of the child, condition of life, especially areas discovered to be instrumental to the disease, factors which could assist development of disease.

## **2. Objective examination (*Status praesens objectivus*)**

For research of objective status, four basic methods are applied: inspection (inspectio), palpation (palpatio), percussion (percussio) and auscultation (auscultatio).

An examination starts with the child in standing position. The doctor stands (at the examination of children of junior age) or sits in front of or behind the patient. The examination of the organs of the abdominal region and kidneys is conducted in the position of the patient lying on the back. Thus his hands of him lie along the trunk or on the chest, and feet and knees bent a little. A counsel asks questions from the patient, or the person with him.

A general examination foresees the examination of patient in order of «head-body-extremity» regardless of localization of disease.

General condition of the patient: satisfactory, moderate, grave, extremely grave. State of consciousness: clear, cloudy, absent, sopor, stupor, coma. Behavior of patient: adequate, inadequate. Position in a bed: active, passive, forced. Facial expression. Constitution: normostenic, astenic, hyperstenic.

Anthropometric information: body weight, length, circumference of head and thorax. Determination if the necessary indices of physical development of a child are within the middle proper indices of physical development of children of this age. Calculation of percentage and actual deviation between the actual and proper indices of physical development, determination of the percentile range/column.

## Estimation of anthropometric information

### Anthropometrical measurements

Criterion	In patient	Norm according empirical formulas	Deviation, cm	Deviation, %
Weight, kg				
Height (stature), cm				
Head circumference, cm				
Chest circumference, cm				
The index of fatness by Chulitska				-
The index by Erismann				-

### Evaluating of physical development according percentile tabl

Criterion	Percentile	Conclusion
Weight, kg		
Height (stature), cm		
Head circumference, cm		
Chest circumference, cm		

An estimation of the proportion of the physical development of the child is in accordance with growth -weight indices (harmonious, disharmonious). An estimation of the level of physical development is taken into account in accordance or disparity of his age. Scopes of physical development - middle, above average, high, below middle, low.

Level of the neuro-psychological development. An exposure of abilities of this child is taken into account the main indices of development, characteristic for this period of age. For example, the basic criterias of the estimation of the psychomotor development of a child of the first year of life are: reactions of the eye reflexes, auditory reactions to reflexes, emotional and social conduct, motions by hands and actions with objects, motions of **\*\*\*commons\*\*\***, preparatory stages of understanding of language, preparatory stages of development of active language, skill and ability in processes.

Determination of calendar age of a child. Determination of features of psychomotor development of a child and the coefficient of development, characteristic of this period of age. For example, the features of psychomotor

development of new-born child is: physiology photophobia, nystagmus, absence of fixing of vision; reactions to sounds begin, change of breathing, blinking; athetosis-like chaotic motions of the extremities, physiological hyper tone of flexors muscles of the extremities; vowel screaming; presence of unconditioned reflexes (life automatism, transitory rudimentary reflexes, mesencephalic automatism). Presence of deviations, drawing of conclusions.

Qualitative estimation of the neuropsychomotor development of children of early age.

First group:

Children with acceleration in development: a) on 2 epicric terms are high development; b) on 1 epicric term -accelerated development.

Second group:

Children with non typical development: children with highly-harmonious development and with normal development.

Third group:

Children with time-lagged development on 1 epicric term; children with the delay of development on 2 epicric terms; children with delay of development on 3 epicric terms.

1 degree delay 1-2 - lines of development; 2 degree delay 3-4 -lines of development; 3 degree delay 5-7 - lines of development;

Fourth group:

Children with untypical development: not harmonic development (part of indices is higher, part - lower by 1 epicric term); low harmonic development (part of indices below 1 epicric term, other part below 2 epicric terms)

Skin: color, humidity, elasticity, thickness of skin fold, presence of primary and secondary elements of infections, their localization, time of appearance and disappearance, size, form, color, consistency, amount, character of placing, eruption of the skin; bedsores and endothelial tests (symptoms of plait, nip, hammer)

Color (coloring): rose, pink, pale, yellow, brown/bronze, red, cyanotic. Discoloration of the skin is seen on separate areas (nasal-labial triangle, ala of the nose, ear-lobe, extremities), natural folds, on cheeks, nose, round the eyes.

In new-born, state of umbilical wound and development of venous network round the navel.

Hair: growth of a masculine type in a feminine vice versa, hypertrichosis, fragility of hair, radiance, diffuse or focal alopecia.

Nails: stratification, bulge, discoloration, transversal nail-wall, spottiness, change of form.

Mucous tunics: lips, oral cavity, conjunctiva; coloring (pink, pale, cyanotic, yellow, red); presence of inflammation, their localization, character; presence of bruises, hemorrhage, edema.

Subcutaneous fat: degree of development (thickness of skin - subcutaneous folds in areas: m. triceps, m. biceps, m. subclavius, m. suprascapularis), character of division. Presence of pitting edema; their localization and consistency. Turgor of tissues.

Lymphatic system. Lymphatic nodes palpation: localization (occipital, parotid, submandibular, along m. sternocleidomastoideus, supraclavicular, subclavicular, axillary, elbows, inguinal, popliteal), size, form, consistency, pain, mobility, cohesion with surrounding tissues and skin, state of skin above them.

Description of the tonsils: degree of increase (1,2,3), surface, cohesion with surrounding tissues, presence of pus on application of pressure, color of mucus membrane (rose, red, bright red "burn pharynx").

Muscular system. Degree of development of muscles: weak, medium, good, atrophy (inherited, acquired, primary, secondary).

Tone of muscles (atony, low tension, high tension, dystony).

Symmetry of development of muscles ( presence of torticollis, asymmetry, underdevelopment of muscles).

Functional ability of muscles: complete motions are possible, paresis (mono-, hemi-, para-, tetra-), paralyzes (mono-, hemi-, para-, tetra-).

Disorders of functions of muscles: cramps (clonic; tonic; and tonoclonic).

Force of muscles: sufficient, reduced.

Damage of muscles: opened (wounds), closed (hemorrhage, deep, hematoma).

Plainness of muscles during palpation, presence of consolidations (compressions) after motion of muscles, presence of symptoms of Lust, Shlezinger, phenomena of Lust, Trusso.

Skeleton: examination must be conducted standing, sitting, lying, in accordance with age, estimation of the proportion of separate parts of the body and the whole body, successive examination of the skull, trunk, upper and lower

extremities (estimation of their sizes, form, exposure of various deformations), estimation of carriage; estimation of the state of teeth, features of bite.

Dental formula:

87654321	12345678	p- permanent	* - caries
87654321	12345678	<sup>d</sup> - deciduous	O - growth disorder

Palpation: bones of the skull (taking of sizes of large top and circumference of cranium, linear sizes of the skull - if necessary); thorax (form, direction of ribs, expression of intercostal spaces, epigastric angle, circumference of the thorax and its right and left half); spine (exposure of deviation from its axis is in different regions); extremities.

Forms of the back: normal, flat, flat-concave, round and concave. Deformation and aplasia of bones of the pelvis.

Extremities: proportional, deformed (types of deformation), anomalies of development, bulge (rachitic "bangles", "filaments of pearls"), presence of platypodia. Pain at palpation of bones.

Joints: number of the staggered joints (mono-, oligo-, polyarthritis), size and form of the staggered joints, was swollen, defiguration, deformation. The presence of pain, slight swellings, state of the skin and surrounding tissues, near the joints (hyperemia, pigmentation, atrophy, knots); mobility of joints and volume of active motions. A change in temperature above the joints. The presence of exudation in joints. Amplitude of passive motions.

The children of early age have diagnostics of congenital dislocation (or displasia) of the hip joint: skin folds, asymmetry of the thighs, shortness of one of the lower extremities, arcuate angle of the knee and hip joints.

Figure: symmetric, asymmetric, naso-labial folds and their expressions. Coloring of the skin, eruption. Eye slits are narrowed or extended. Exophthalm, endophthalm; eyelids, ptosis, edema, xanthomas, xantelasmas. Sclera: colouring, state of vessels. Conjunctiva: colouring, inflammation, scars. Pupils: their symmetry, reaction to light (line and co-operated).

Cardiovascular system. During general examination attention should be paid to the position in bed, physical development, color of skin and visible mucus membranes, presence of edema, form of fingers, nails of hands and feet, presence of visible apical, cardiac shove, epigastric pulsation, cardiac hump.

Examination of the area of the heart, neck and epigastric area. Area of the heart: cardiac hump, shove of apex of the heart.



Area of neck: pulsation of carotid arteries, "dance of carotids", and edema of neck veins, venous pulsation, symptom of Musset.

Pulsation of the liver (true or false). Expansion of the superficial veins in the area of the heart.

Examination of pulse. Places of palpation: on radial, temporal, carotid, popliteal, posterior tibial, ulnar, femoral arteries, dorsal pedis artery. Description: rhythm, *tension*, *synchrony*, *frequency*, *filling* size, normalcy, form, number of vibrations of the vascular wall per contraction of heart.

Palpation of pulsation of other peripheral arteries (carotid, temporal, ulnar, dorsal pedis, poplitea, femoral, posterior tibia and abdominal aorta arteries).

Palpation of cardiac area: pain and edema, determination of systolic, diastolic vibrations ("cat purring"), determination of apical thrust (localization, force, area, height).

Frequency of heart beats per minute depending on age

Age of child	Median frequency of heart beat
New-born	140-160
6 months	130-135
1 year	120-125
2 years	110-115
3-4 years	105-110
5 years	100
6-8 years	90 - 95
9-11 years	80 - 85
12 years and above	70

Localization of apex thrust of Children depending on their ages.

Percussion. Borders of relative cardiac dullness (right, overhead, left). Sizes of diameter of relative dullness of the heart. Borders of absolute dullness of the heart. Width of vascular bundle.

**Border's of hearts relative dullness**

Border	In patient	Normal
Right		
Upper		

Left		
transversal size		

**Border's of hearts absolute dullness**

Border	In patient	Normal
Right		
Upper		
Left		
transversal size		

Auscultation of the heart. Rhythm of cardiac activity (rhythmical, arrhythmical). Heart rate. Heart sounds, their sonority on all points of auscultation. Breaking up, split of sounds, additional sounds [rhythm of gallop, rhythm of «quail»). Murmurs, their correlations with the phases of cardiac activity, character, force, timbre, duration. Best auscultation points of murmurs, their conductivity. Changes of auscultatory sounds depending on the phases of breathing, position of patient. Noise of pericardial friction, its localization.

Auscultation of vessels (carotid, subclavian, femoral arteries, abdominal aorta, jugular veins). Presence of sounds, murmurs.

Registering of blood pressure on brachial artery by auscultation. Maximum and minimum pulse, pressure. Taking of pressure on the lower extremities. Arterial pressure is registered on humeral and femoral arteries (maximal and minimum). To compare the obtained index to the normal expected index using a formula for the age of the child (to represent the formula and calculation). Orthostatic test.

Respiratory system. Breathing through the nose (free, hampered, absence of nasal breathing in one or two nostrils). Give an estimation of the phenomena of sounds during breathing: snuffling, hoarseness, sonorous, scream, moan. An examination of the patient for cyanosis round the eyes, nose and mouth, pallor with a grey tint, herpes on the skin of the person and skin lesions, respiratory movements of the wings of the nose, suds in the corners of the nose. Secretions from the nose - mucous, muco-serous, muco-purulent, ichors, dry cold. Voice (loud, quiet, sonorous, aphonia, hoarse). Cough (moist, dry, irregular, suffocating, laryngial, pharyngial, paroxysmal, sickly, spasmodic, bitonal).

Static examination of the thorax: form with description of signs which corresponds to normosthenic, to asthenic or hypersthenic type; symmetry of both halves of the thorax, position of the clavicles, spines of the scapulae, intercostal

spaces; dilation of the veins on the thorax; pathological forms of the thorax: emphysematous, paralytic, barrel shaped, boat-like, rachitic, asymmetric, scoliotic.

Dynamic examination: symmetry of the movements of the thorax during respiration, participating of auxiliary muscles in breathing, breathing (thoracic, abdominal, mixed) type, breathing rate per minute during sleep, at rest, by placing the stethoscope to the nose or the diaphragm on the thorax; dyspnoea (expiratory, inspiratory, mixed); respiratory excursion; pathological types of breathing (the arrhythmic breathing, Biot's respiration, Cheyn-Stoke's respiration, Kussmaul, discoordination of thoracic and diaphragmal muscles).

Palpation. Determine pain during pressure on the area of nasal cavities, maxillary cavities. Pain in the different areas of the thorax along the ribs and intercostals spaces elasticity of the thorax and feeling of sound of pleura friction. Palpation of the bony framework of the thorax: deformation ("costal beads", "cardiac hump"), intercostals spaces: flattening, edema, pain. Determination of the vocal fremitus: its symmetry, strengthening, weakening, localization of discovered changes.

Comparative percussion of the lungs (direct for breast feeding age children; indirect for older children): character of percussion sounds - clear pulmonary, tympanic, band-box, dull; on the symmetric areas of the thorax - above the clavicles, in the axillary region, suprascapular space, in interscapular space and subscapular space.

Topographical percussion of the lungs: determination of the margin of the lung apex anteriorly and posteriorly, width of Kronig's area and of the lower margins of the lungs. Exposures of symptoms of Korany, Arkavin, Maslov, Filosofov's bowls.\*\*\*

Children's topography of the lower border of the lungs.

Topographical lines from the right, to the left.

An active excursion of the lungs is business and on the left on the back axillary line.

Auscultation of the lungs. Comparative Auscultation above the clavicles, under the clavicles, axillary areas and suprascapular area. Character of respiratory sounds: vesicular breathing and its varieties (is it weakened, increased, puerile, hard, bronchial breathing (amphoric). Weakening or absence of respiratory sounds, localization.

Wheezes: localization, their authentication. Dry rales (sonorous, harsh). Moist rales (small-, middle-, big vesicular), sonority, places, hearings, permanent, inconstant; crepitation. Noise of friction of the pleura. Bronchophony (identical on either side, increased).

Digestive system. *Examination of the oral cavity*, tongue (color, humidity, expression of papillae, presence of stratification, ulcers, cracks). Teeth (milk, permanent: caries, destruction). Gums (color, hemorrhages, ulcers, purulent exudates, aphtae, oral moniliasis). Soft and hard palate (colouring, stratification, haemorrhages, ulcers). Pharynx. Tonsils. Is there a smell from the oral cavity.

Skin: Pallor, icteric, "hepatic hands", "vascular asterisks", "drumsticks", "hour glass"

Examination of the stomach (examination should be in the vertical and horizontal positions of the patient). Configuration of the stomach: ordinary, thrusting-out (normal, abnormal, local), stomach is pulled in. Presence of dilated subcutaneous veins. Visible peristalsis. State of the navel. Hyperpigmentation of skin. Scars. Exudation. Participation of anterior abdominal wall in breathing.

Examination of area of the anal canal : gaping, prolapse of the mucus membrane, cracks round the anal opening, presence of intertrigo.

Superficial palpation: Tension of muscles of the abdominal wall, localization of tension. Pain, area of hyperesthesia. Peritoneal symptom of Schotkin-Blumberg, Rovsing. Divergence of direct muscles of stomach, ruptures, tumor.

Percussion of stomach. Character of percutaneous sound is in the different areas of stomach. Determination of free liquid is in an abdominal region, its level. Determining sizes of liver after Kurlov, spleen (longitudinal and transversal sizes), Mendel's symptom.

Deep sliding methodical (topographical) palpation by Obrastsov - Strazhesko. Palpation of the intestine: sigmoid colon, caecum, appendix, ordinary position of iliac, ascending and descending coli and transverse colon. Determine the width of every segment, form, contours, mobility, pain, grumbling.

Stomach: Determination of lower boundary, palpation of the greater curvature of the stomach. Areas of pain.

Liver: Visible increase of the liver, its pulsation. Palpation of *the* liver is properties of edge (sharp, rounding, soft, dense, unequal) and surface in cases of hypertrophy of organ (smooth, grainy, rough); pain.

Gall-bladder: Palpation and percussion of the area of gall-bladder. Form, size, mobility, consistency (soft, dense, rough), pain. Symptoms of Ker - Obrastsov, Mussi -Geogievsky, Ortner - Grekov, Mendel, reflexive areas of Zakharin - Ged.

Pancreas: Pain in the areas of projection, palpation in positions of Grott.

Spleen: Palpation, properties of the edges, pain, consistency (soft, dense), surface (smooth, rough).

Auscultation: *size* of the stomach by the method of auscultation-friction, expression of peristalsis.

Excrement: Consistency, smell, color and pathological admixtures.

Urinary system. *External examination*: presence of external extrarenal signs of disorder of the urinary system ("kidney" pallor, edema, hemorrhages, signs of abrasion). External small anomalies. Examination of the lumbar area: hyperemia of skin, smoothing of contours, thrusting out of the kidney area. Examination of the external genital; for boys: the testicle drop through the scrotum, inflammatory changes in the area of prepuce and the crown of glans; In girls: color of mucus membrane and presence of excretions.

Palpation of the kidneys in horizontal position: on the back and on the side; in vertical position: form, size, consistency, configuration, mobility, degree of prolapsus (kidney which is not palpated), mobile kidney character of surface, pain. Palpation of the urinary bladder: determination of liquid in the bladder, pain and sensitivity in the projection of kidneys, palpation of the lumbar area, bottom of the urinary bladder with determination of edema, pain in the upper and middle points of the ureters.

Percussion: Symptom of Pasternatsky. Determination of ascitis in an abdominal region (in horizontal and vertical body), percussion of urinary bladder.

Characteristic signs of edema in diseases of the cardio-vascular system and their difference from the edema of other origin.

Endocrine system: During examination, pay attention to the disorders of growth (giantism, nanism, hypo stature) and weight of body (hypotrophy, exhaustion, paratrophy, obesity). Exposure of rough anomalies of physical development, deformations of skeleton. Estimation of the physical development: (weight, height, circumferences of the head and thorax; extremities), empiric formulas, which estimate physical development and the determination of degree of physical development. Adequacy of conduct, feature of step. State of the skin: (dryness, increased humidity, pigmentation, strias, abscesses); nails, teeth and hairs. Subcutaneous fatty tissue: thickness of folds at different levels, abnormalty of division, presence of compressions, pain and edema. Examination of external genitals: expression of the second sexual signs, formula of sexual development. Palpation: determining sizes and consistency of thyroid, palpation of pancreas, ovaries and testicles. Determination of arterial pressure (increase, decrease).

Neuro-psychological development: General estimation of the development of the child: orientation in time, space, in person; contact (easy, labored, impossible); the behavior of the patient during examination (adequate, psychomotor excitation); \*\*\*mien\*\*\*, mimicry; a reaction is on surroundings (liveliness, apathy).

Determination of neuro-psychological development in accordance to age: to describe the criteria of neuro-psychological development and accordance of the state of formation for the children of early age (to 3) and level of consciousness of the child.

General examination: posture, examination of the cranium, body/trunk, extremities; Exposure of trochanter reflex, athetosis, paralyses, paresis. Coordination of movement: Research of equilibrium of the body (Romberg test, finger-nose test and others); examination of state of the pupils, their reaction to light (living, languid), convergence and accommodation; Position of eyeballs, symmetry of the body. Research of sensitiveness: temperature, pain, tactile, muscle -joint feeling; olfaction; taste; sight and hearing. During examination of children of early age, define the state of innate unconditioned reflexes and Pavlov's reflexes. Research of reflexes from: muscles; skin - abdominal - upper, middle, lower; tendons and periosteal. Research of function of cranial nerves: Rigid of muscles of the back of head, symptoms of Kernig, Babinski symptom (upper, lower, pubal), for the children of the first months. Research of mechanical excitability of nerves (symptoms of Khvostek, Trusso). Sleep (good, insomnia, somnolence, disorder of sleep, duration of sleep).

Presence of paresis, paralyses, low blood pressure, hyperkinesis.

Determination of vegetative status.

Dermography: color, thickness, time of appearance or disappearance or rise above the level of skin.

Pilomotor reflex. Dejerine's reflex. Ortostatic, klinostatic, solar reflexes.

### **3. Previous diagnosis** (its bases), diagnosis preliminaries.

Based on the information obtained during the examination of the child, form an early diagnosis with the selection of basic syndromes. For confirmation of a diagnosis symptoms typical for this disease are needed. It is possible to select such symptoms which are united in syndromes to make a conclusion about the disorder of the organ or systems of organs.

#### ***Standard***

*Taking into account complaints about an slightly productive moist cough, which disturbs mainly at night, has frequent character, and also subfebril temperature of body;*

*Anamnesis morbi: The child has been ill for 2 weeks, the disease began sharply, after carried ORVI, it appeared dry at first, then changed later to a moist cough. The cough disturbs mainly at night and is accompanied a noisy difficult breathing*

*.The child received ambulatory treatment (antibiotics, symptomatic treatment), which brought no improvement.*

*Anamnesis vitae: the child is often ill with ORVI - 5-6 times a year, and is treated ambulatory; symptoms appeared first in the first year of life. Allergy and inherited anamnesis are absent. Contact with a patient with tuberculosis is denied by the parents.*

*Objective examination: common state of the child is middle weight. Position is abed and passive. Breathing is noisy, with the labored and sonorous expiration. There is perioral cyanosis at exertion; and clean heart sounds. PS 118 per min. The stomach is soft and takes part in the act of breathing, disorders from the side of the physiology emptying. It is possible to select the syndrome of disorder of the respiratory system. The presence of signs of bronchial obstruction (noisy breathing with sonorous expiration dyspnoea, participation of auxiliary muscles in the act of breathing and box-like sound at percussion, dry sonorous rales at auscultation) are grounds to suspect acute obstructive bronchitis.*

#### **4. Laboratory and instrumental methods of examination.**

To perform laboratory and instrumental researches which are needed for clarification of the topical disease and confirmation of the final diagnosis. All appointed examinations are in detail (which indices are determined). Rejections which a counsel expects for confirmation of hypothesis about this disease are further marked.

Results of additional researches and their interpretation: Results of general clinical examination (general analysis of blood, urine, excrement of the eggs of intestinal worms, test for enterobiosis) and biochemical, bacteriological (urine inoculation, inoculation of sputum, blood, excrements and sensitiveness to antibiotics), immunological tests reveal the dynamics of disease. Results of instrumental and other methods of research are obtained (ECG, FCG, ultrasonic research, sciagram, spiogram, electroencephalogram, computer tomography, scanning, bronchoscopy, cystoscopy, esophagogastroduodenoscopy). Conclusions of specialists with interpretation..

#### **5. Final clinical diagnosis**

All aspects of the basis of previous diagnosis are considered, and also the results of the additional methods of examination to form a final clinical diagnosis.

#### ***Standard***

*Taking into account data from the previous diagnosis, and also the laboratory examination: in peripheral blood - leucopenia (3,4510) with a change to the left due to neutrophils (12%); in washings off from fauces for viruses, rhinovirus was discovered; bacteriological research of sputum- pneumococcus was cultured; and*

*also given the roentgenologic research of lungs: transparency of lungs is increased, moderate strengthening of pulmonary picture due to vascular component; from spirometry- the disorder of pulmonary ventilation of an obstructive type of 1-st degree; forms the basis to diagnose the acute obstructive bronchitis.*

## **6. Journal of disease (*decursus morbi*)**

Observation of patients is conducted during three days **\*\*\***(under time and after employments)**\*\*\***. Daily records must show the main information about the patient: common state and discovered deviations at objective examination. In subsequent journals the dynamics of the subjective and objective symptoms, discovered at the additional examinations which influenced on the establishment of diagnosis and correction of directions of treatment conducted during these days must be reflected. Changes of the medical settings during treatment must be confirmed in the journal.

The page parallel to text part of journal, is for the transfer of the result from the examination of the patient (general control analysis of blood, urine, instrumental methods), all directions of treatment (mode, diet, groups of medicines, measures of physical therapies).

On the left is the temperature of the body, frequency of respiratory motions, pulse per minute, indices of arterial pressure.

### ***Standard***

*Date 18.09.96*

*State of patient*

*t - 37,8°C; PS 98 ;BF-  
22 in min.;*

*BP-110/60 m.m.c.*

*Complaints of patient: periodic aching pains in the lumbar area, which are unconnected with physical exertion, the increase of temperature to 37,8° and common indisposition. Common state – middle severity. Skin cover - pink, clean, there are cyanotic circles under the eyes, edema of the lower eyelids. Elasticity of the skin and turgor tissues stored. Mucus membranes of the oral cavity and conjunctiva of eyes are pink and clean. Heartbeat is rhythmic with clear tones and sounds. In lungs, there is vesicular breathing. The stomach at palpation is soft and painless. Symptom of Pasternatsky is positive on the left side. Urination is 5-6 times per day, free and not painful. Daily diuresis is 400 ml. Incontinence of urine is not observed. Taking into account the presence of the dynamics of looking after the patient of intoxication syndrome, and also presence of signs of inflammatory process of kidneys, it is possible to consider the expedient need of antibacterial*



*therapies. Treatment is preliminary appointed to continue Control analysis of urine. 2 Tanks-sowing of urine are on a flora, (group of AB). Curator: signature*

## **7. Temperature chart.**

On the temperature chart, except for the curves of temperature, frequency of pulse and breathing, indicate diuresis, weight of patient; a column diagram is arterial pressure and date of taking a hygienical bath.

## **8. Treatment and prophylactic measures.**

To describe shortly the general principles of the treatment of the basic disease (modern level). To indicate in details the diet (for the children of the first year of life) with the calculations necessity in relation to basic food, drafting of menu. Further, coming from a clinical variant and degree of severity of the disease, appointment of the directions of therapy of the patient (etiopathogenetic, symptomatic, substitutive therapy).

Measures of physical therapies.

Governed conduction of the health centre system of reconvalescence. A complex of prophylactic measures is at this nosology form.

## **9. Epicrisis.**

It is a conclusion of the doctor about the disease of the patient, course of the disease, consequences of treatment, the state of child in a time of admission, his capacity, prognosis, to subsequent mode and treatment.

Information of the details of the patient is recorded, duration of establishment, suspected diagnosis, the marked and also concomitant diseases, state of the patient on hospitalization. Further give a short description of the disease symptoms, with addition of the results of the laboratory, roentgenologic and other examinations, consultation of specialists, to confirm the patient's diagnosis. Shortly indicate the treatment which was administered, changes in the state of the patient (dynamics of the disease), which took place during the period of admission of the patient in the permanent establishment.

On the basis of the noted information give conclusions about the prognosis.

The state of the patient is described on the final date of treatment with the short list of complaints which are contained, objective changes and deviations of laboratory indices.

At the end of epicrisis give recommendation in relation to the diet, which a child must adhere to (with the detailed description of character of the diet, on what term appointed).

Mode which must be for the patient after discharge from the permanent establishment. Treatment (with the list of directions of treatment) which must be continued a patient.

Sanatory-spa treatment (with the list of the settled resorts and sanatoriums, with clarification of period of year, when it is possible to be on Sanatory-spa treatment).

Recommendations in relation to the visit of visitors (allowed, forbidden), or children of the child, about possibility of studies at school); (to postpone for a certain period, studies at school, a brief educational day is, studies at home, studies in a special school); participation in lessons of physical education (forbidden for a period of time, employment in the special group, allowed); a release (or permission) is from production practice.

Clinical supervision at home (by a district pediatrician, narrow specialist), necessary or an examination is not needed and how often it is necessary to conduct (control of blood, urine, excrement tests, X-rays and others like that). If necessary, - recommendation for subsequent treatment in other medical establishments.

### **List of practical skills which must be mastered by the student of the course.**

1. Collect state information about the health of the patient

1.1. Conduct the questioning of the patient.

1.2. Conduct a subjective examination and physical examination of the patient.

1.3. Make the plan of laboratory-instrumental examination of the patient.

1.4. Analyze the results of the laboratory and instrumental tests:

- Blood: clinical analysis of blood, biochemical tests, immunological indices, titers of antibodies, rheumatoid factor, immunoglobulin;

- Urine: a clinical analysis by Nechiporenko, and Zimnitsky's methods;

-sputum: general analysis, bacteriological test;

- Excrements: general analysis, test on dysbacteriosis, helminthes, the simplest, coprologic;

- Contents of the stomach and duodenum, obtained at auscultation, endoscopic methods of research, esophagogastroduodenoscopy, bronchoscopy, colonoscopy;

- roentgenologic researches: sciagraphies, tomography of organs of the thorax, abdominal region, stomach, intestine, cholangiography and cholecystography, bronchography, sciagraphy of joints;

- ultrasonic researches: heart, liver, pancreas, biliary ducts, kidneys and thyroid.

## 2. Cardiovascular system.

2.1. Examination of area of heart, palpation of the heart, percussion of the relative and absolute dullness of the heart.

2.2. Auscultation of the heart (norm and pathology).

2.3. Examination of veins and arteries.

2.4. Record of electrocardiogram (ECG).

2.5. Decoding of ECG in norm.

2.6. Decoding and analysis of ECG at pathology.

2.7. An analysis of sciagram of organs of pectoral cavity is different projections with the study of scopes (contours) of the heart. An estimation of photofluorogram with contrasted esophagus.

2.8. Decoding of normal phonocardiogram (FCG).

2.9. Decoding and analysis of FCG at pathology.

2.10. Veloergometry (bicycle ergometry). Test of Shtange.

## 3. Organs of respiration.

3.1 Determination of the vocal fremitus, bronchophony.

3.2. Percussion of lungs (comparative, topographical).

3.3. Auscultation of lungs.

3.4. Estimation of a sciagram in a direct projection and tomogram.

3.5. Spirography: estimation of indices, degree of respiratory insufficiency and type.

3.6. Peak flow metric, clinical estimation of indices.

## 4. Gastrointestinal tract.

4.1. Conducting of examination of the oral cavity.

4.2. Superficial palpation of stomach.

4.3. Methodical-deep sliding palpation by the method of V.P.Obraztsov and M.D.Strazhesko.

4.4. Percussion of the stomach. Percussion of the liver. Determination of borders and sizes of the liver.

4.5. Palpation of the liver and gall-bladder.

4.6. Percussion and palpation of the stomach.

4.7. Determination of borders of the stomach by the method of splash and ausculto-friction

4.8. Palpation of the pancreas.

4.9. Conduction of factious research on gastric juice. Analysis of results.

4.10. PH of gastric maintenance. Estimation of acid generative function of stomach.

4.11. Conduction of the duodenal content. Analysis of results.

4.12. Diagnostic estimation of the results of roentgenologic research of the gastrointestinal tract.

4.13. Diagnostic estimation of ultrasonic research

5. Excretory system.

5.1. Objective research of the urinary system.

5.2. Exposure of external extrarenal symptoms of disorder of the urinary system.

5.3. Palpatory, percutory methods of exposure of fluid in the abdominal region.

5.4. Palpation of kidneys, urinary bladder, points of pains of ureters.

5.5. Diagnostic estimation of laboratory research.

5.6. Diagnostic estimation of results of roentgenologic research of kidneys.

5.7. Diagnostic estimation of ultrasonic research of kidneys.

6. System of blood and heomopoesis.

6.1. An estimation of clinical blood test taking into account age of the patient.

6.2. Method of determination of the state of coagulative and anticoagulative systems of blood.

6.3. Diagnostic estimation of results of coagulogram, thromboelastogram and bleeding duration.

6.4. Method of determination of blood and Rhesus factor type.

6.5. Groups of blood, its components and blood substitutes for transfusion.

6.6. Diagnostic estimation of immunological tests.

7. Musculoskeletal system.

7.1. Estimation of state of teeth, features of bite.

7.2. Estimation of the sizes, form, exposure of deformations of bones of skull, trunk, extremities.

7.3. Exposure of deviation of axis of spine.

7.4. Palpation of bones of the skull, thorax, spine, extremities and joints.

8. Endocrine system.

8.1. Examination and palpation of thyroid.

8.2. Determination of degrees of multiplication of the thyroid.

8.3. Determination of the formula of sexual development of age.

9. Nervous system.

9.1. Neuropsychological development according to age.

9.2. Determination of the level of consciousness of the child.

9.3. Research of the function of cranial nerves.

9.4. Research of superficial and tendons nerves.

9.5. Research of sensitiveness.

9.6. Conduction of tests on coordination of movement.

9.7. Research of the function of the vegetative nervous system.

9.8. Exposure of pathological reflex.

10. Skin, subcutaneous layer.

10.1. Determination of dryness or humidity of skin.

10.2. Determination of temperature of skin.

- 10.3. Elasticity of skin.
- 10.4. Thickness of a skin fold.
- 10.5. Estimation of the state of capillaries.
- 10.6. Determination of thickness of subcutaneous layer.
- 10.7. Determination of presence of edema.
- 10.8. Determination of turgor of soft tissues.
- 11. Muscular system.
  - 11.1. Determination of degree of development of muscles.
  - 11.2. Active and passive tone of muscles.
  - 11.3. Muscular force.
  - 11.4. Volume of passive and active movement.
  - 11.5 State of trophism of separate muscles.
  - 11.6 .Presence of paresises and paralyses.

### **Chart of diagnostic search**

#### 1-st stage:

Purpose - to select diagnostically – meaningful information on the stage of collection of anamnesis.

1. Find out at objective research of the patient typical clinical symptoms, characteristic for the supposed disease

It is needed for this purpose:

1. Analyze the complaints of patient.
2. Use information about the dynamics of development of the disease.
3. Know from data of anamnesis the presence of previous acute and chronic diseases.

#### 2-nd stage:

Purpose - to decide the presence of disease of internal organs in the patient.

It is needed for this purpose:

1. Find out at objective research of the patient typical clinical symptoms, characteristic for the supposed disease.
2. Learn the results of laboratory and instrumental researches which confirm or deny the diagnosis of this disease.
3. Conduct differential diagnostics of disease, discovered in the patient, with similar diagnosis after clinical course.
4. Draw a conclusion about a presence of disease of internal organs for the patient.

3-rd stage:

Purpose - to formulate the unfolded clinical diagnosis.

It is needed for this purpose:

1. Define the clinical form of Disease.
3. Define the presence of activity, degree of severity, course, and offer the plan of subsequent tactic of conduct sick.

**Prepared by Associate Professor, PhD - Romaniuk O.**

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