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Кафедра инфекционных болезней

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СХЕМА ИСТОРИИ БОЛЕЗНИ ПАЦИЕНТА С ИНФЕКЦИОННОЙ ПАТОЛОГИЕЙ

Учебно-методическое пособие
для студентов 4, 5 и 6 курсов факультета
по подготовке специалистов для зарубежных стран
медицинских вузов

CASE HISTORY SCHEME OF A PATIENT WITH INFECTIOUS PATHOLOGY

Teaching workbook
for 4, 5, 6 th year students
of the Faculty on preparation of experts for foreign countries
of medical highest educational institutions

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М 70 Схема истории болезни пациента с инфекционной патологией: учеб.-метод. пособие для студентов 4, 5 и 6 курсов факультета по подготовке специалистов для зарубежных стран медицинских вузов = Case history scheme of a patient with infectious pathology: Teaching workbook for 4, 5, 6 th year students of the Faculty on preparation of experts for foreign countries of medical highest educational institutions / В. М. Мицура, Е. Л. Красавцев. — Гомель: ГомГМУ, 2016. — 16 с.

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В учебно-методическом пособии представлены схема подготовки и написания учебной истории болезни, протоколы обследования и лечения пациентов с инфекционными заболеваниями. Пособие соответствует программе по инфекционным болезням.

Предназначено для студентов 4, 5 и 6 курсов факультета по подготовке специалистов для зарубежных стран медицинских вузов.

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INTRODUCTION

The students are getting skills of clinical examination and management of patient at the department of internal diseases propedeutics. However, interview and clinical management of a patient with infectious pathology have some particularities that should be reflected in the plan of the case history. For example, students are getting skills of collecting epidemiological and immunological history for accurate and timely diagnosis.

With the help of doctor's interview and investigation methods, taken in certain order and analysis of clinical manifestation, student should determine leading syndromes of infectious disease, stage of pathological process and based on obtained data to formulate the diagnosis.

The student should follow this scheme as a framework for successful interview and examination of a patient with infectious pathology.

CASE HISTORY SCHEME OF A PATIENT WITH INFECTIOUS PATHOLOGY

1. Passport information
2. Complaints
3. History of present illness (Anamnesis morbi)
4. History of life (Anamnesis vitae)
5. Epidemiological history
6. Current status (Status praesens objectivus)
7. Preliminary diagnosis and justification
8. Observation plan of the patient
9. Results of laboratory and other subsidiary methods
10. Treatment plan
11. Diaries
12. Temperature curve (graph)
13. Differential diagnosis
14. Clinical diagnosis and its justification
15. Epicrisis
16. Prognosis. Follow up after discharge
17. References

The example of case history scheme title page is shown below.

The Ministry of Health of Belarus

Gomel State Medical University

Department of Infectious Diseases

Case history number _____

Patient _____
/Last name, first name, age/

Clinical diagnosis _____

Complications _____

Supervision Dates — _____

Name of student — _____

Group № _____.

Teacher of the group _____

Gomel 2016

1. PASSPORT INFORMATION

a) Surname, first name.
b) Age, date of birth.
c) Occupation and place of work.
d) Home address.
e) Date of admission to hospital.
f) Primary diagnosis (diagnosis of a doctor who referred patient to hospital).

2. COMPLAINTS

This section is related to the patient's complaints on the first day of supervision. Complaints concern to syndromes of intoxication, dehydration, jaundice, to the pathology of one or more systems (digestive, nervous, respiratory, etc.) and allergies. The major morbid symptoms and their detailed characteristics should be figured out. Indicate the day of disease (from its start).

3. HISTORY OF PRESENT ILLNESS (Anamnesis morbi)

This section is related to the onset of disease, clinical signs and symptoms and their development until the first day of supervision.

Upon questioning the patient, remember that infectious diseases have a cyclical course (prodromal period, height, convalescence), and the sequence of symptoms. In all infectious diseases there is a general intoxication syndrome and specific symptoms of various systems of organism.

The development of the disease (acute or gradual) and the sequence and apearance of symptoms day by day are described. Figured out whether prodromal period is present, the character and duration of fever. It's important to find out about the symptoms and the time of their appearance while questioning the patient. It is necessary to characterize the symptoms in details. For example, for abdominal pain, mentioned its nature, intensity and localization. In case of diarrhea figured out the stool frequency, stool consistency (watery, pappy), color (normal, green, bleached), smell (normal, smelly, putrid, no fecal odor), the presence and nature of pathological impurities (mucus, blood, pus), etc. Such signs will help in differential diagnosis within the group of similar diseases.

The date of visit to a doctor, prescribed treatment, its efficacy and tolerability, results of the patient examinations and tests (documented or the words of the patients). Date of admission to the infectious hospital. The course of the disease, treatment of patient in hospital prior to supervision are noted.

4. HISTORY OF LIFE (Anamnesis vitae)

Brief biographical information. Place of birth, development in childhood, education, the start of employment life. Occupation, occupational hazard.

Family-life, health of family members. For women — gynecological history: the time of appearance, character, and duration of the menstrual cycle, pregnancy, childbirth, and their outcomes.

The health status of the parents, the diseases of parents and closest relatives (tuberculosis, syphilis, alcoholism, nervous and mental diseases, malignancies, metabolic and genetic diseases).

Bad habits: smoking, alcohol use (age of start, quantity), and other addictions (chemical substance abuse, drug addiction, etc.). The presence of injuries, operations, and chronic diseases.

Allergic history tolerance to drugs, foods, vaccines, serums, what kind of allergic reactions took place.

The immunological history — vaccination (time, number, intervals, the reaction to the vaccines).

5. EPIDEMIOLOGICAL HISTORY

Epidemiological history aims to identify the possible source of infection, routes of transmission and the host's immune status.

It includes the presence of contact with infectious patients (at home, the neighbors, at work), being on the road and traveling, contact with any visitors, living in epidemiologically disadvantaged areas, animal care, whether the disease present in animals, participation in the hunting and fishing.

Attention is given to the sanitary condition of the apartment, the presence of flies and ectoparasites (lice, scabies). Investigate the conditions of water supply, central water supply, well (mine pit), with or without cover, water supply at work. Describe the sanitation of bathrooms: sewage, WC or air-closet, and their disinfection. Garbage disposal, cesspits (box, container), sanitary condition of the surrounding area.

Nutrition: eating unwashed fruits and vegetables, not boiled milk, low-quality products (their storage, preparation, etc.), drinking tap water, place of food consuming (at home, in the dining room, kitchen), what products family consumes (from the store, the market), the storage of food (fridge, cellar, etc.).

Personal hygiene: frequency of visits to bath and change of underwear and bed linen, washing hands before eating, the condition of nails, presence of skin lesions, wounds, abrasions and scratches.

Occupational nature of the patient: the industrial environment and hazards (hairdresser, dealer, breeder, working in the leather industry, working in animal farms, contact with pesticides etc.).

In viral hepatitis, clarify the parenteral history: whether patient had blood or plasma transfusions, any surgery or injections performed, and other manipulations involving violations of the integrity of the skin and mucous membranes (visit to the dentist, in women — to gynecologist), for the last 6 months before the start of disease (in chronic liver disease suspicion — during the lifetime). Unprotected sexual contacts, both heterosexual and homosexual.

6. CURRENT STATUS (Status praesens objectivus)

THE GENERAL CONDITION of the patient (satisfactory, moderate, severe) is estimated by the severity of intoxication, decompensation of organs and systems functions, state of consciousness. Consciousness: clear, confused, stupor, sopor, coma, delirium, hallucinations. Position of the patient: active, passive, constrained. Body type: constitution (asthenic, normosthenic, hypersthenic), height, body mass. The body temperature, chills. The appearance of the patient's face, expression, puffiness. Skin and visible mucous: color, pigmentation, rashes (character, location, num-

ber of elements), itching, scars, scratches, hemorrhage, vascular stars. Humidity and skin turgor. Enanthema (rashes on mucus membrane). Subcutaneous fat: development, edema (general, local). Lymph nodes: location, size in centimeters, mobility, consistency, tenderness. Pharyngeal tonsils, their size, color, texture, exudates. Musculoskeletal system: deformation, development, pain while palpating, presence of seizures. Finger nails, status of terminal phalanges of fingers and toes.

THE RESPIRATORY SYSTEM

Nose: The character of breathing, the nature of nasal discharge. Larynx: voice, hoarseness, aphonia. Chest: shape, symmetry. Breathing: symmetry, depth, rhythm and frequency of breaths per minute. Percussion: Comparative and topographical, upper and lower boundaries of the lungs, the mobility of the lower edge of the lung (in centimeters) on the posterior-axillary line. Auscultation: the nature of breathing, wheezing, crepitation, pleural friction sound, bronchophonia.

SYSTEM OF BLOOD CIRCULATION

Visual inspection of vessels in the heart area, apical and cardiac impulse. Percussion: the limits of the relative dullness of the heart: right, top, left, the configuration of the heart. Auscultation of the heart, blood vessels, heart tones sonority, the presence or absence of noise, noise of pericardium friction. The pulse rate at radial artery, its fullness, pressure (force), the rhythm, the pulse deficit, dicrotism. Inspection and palpation of the vessels of legs. Skin manifestations of the impaired microcirculation. Arterial blood pressure.

THE DIGESTIVE SYSTEM

Oral cavity: the tongue (moisture, swelling, plaque, color, fissures), the condition of the teeth, gums, soft and hard palate, the presence of enanthem, pharyngeal mucosa. Abdomen: the shape, symmetry, participation in the breathing, flatulence, venous collaterals, ascites. Superficial palpation, pain, muscle tension, peritoneal symptoms, tumor formations, hernia. Palpation of the intestine: the condition of large intestine parts (including cecum and sigmoid colon), small intestine and stomach pain, rumbling, cramps, peristalsis, the presence of hemorrhoids.

LIVER:

Percussion: the border of the liver by Kurlov, Ortner's symptom. Palpation: increase in centimeters, edge, texture, tenderness, the surface of the liver. Palpation of the gallbladder: determining of the painful points, frenicus-symptom. Palpation of the pancreas. Spleen: percussion - determination of transverse and longitudinal dimensions. Palpation — on the back and the right side position - the form, edge, surface texture and painfulness.

URINARY SYSTEM

Diuresis, urine color, pain in the lumbar region, dysuria. Palpation of the lumbar region, suprapubic palpation. Percussion of the urinary bladder.

REPRODUCTIVE SYSTEM

Sexual function, menstrual cycle. Inspection, palpation of scrotum, testicles, suprapubic area, discharge from the genitals.

THE ENDOCRINE SYSTEM

Condition of the thyroid gland, size and consistency, the width of eyes openings, the brightness of eyes, exophthalmos.

NEURO-PSYCHIATRIC SYSTEM

Consciousness (clear, confused, sopor, coma, delirium, hallucinations), intelligence and mood. Increase in excitability (euphoria, excessive talkativeness, aggressiveness, depression, lethargy, apathy, drowsiness, stupor). Headache (location, nature). Meningeal syndrome. Motor areas. Sensitive area. Cranial nerves. Reflexes of pupils, pharyngeal, knee, ankle, belly. Pathological reflexes. Dermographism. The sense of smell.

7. PRELIMINARY DIAGNOSIS AND JUSTIFICATION

The preliminary diagnosis is formulated on the basis of the history and objective clinical study, obtained on the first day of supervision.

To justify the diagnosis, support and pathognomonic symptoms, consider a combination and sequence of development are taken into account. In difficult cases, the more likely disease is favoured. This section contains the nosological forms, in which the differential diagnosis for particular supervised patient should be carried out.

8. OBSERVATION PLAN OF PATIENT

The curator (supervisor) should make a plan of study that could confirm the presumptive diagnosis, and exclude similar diseases. The list of investigations must contain laboratory, instrumental, and other methods. Blood tests, general and biochemical analysis, urine analysis, scatoscopy (coprogram), cerebrospinal fluid examination. Bacteriological tests (cultures) of blood, urine, feces, bile. Serological tests, skin tests. Instrumental methods: sigmoidoscopy, X-ray of the chest and gastrointestinal tract, ECG, and others.

The approximate plans of investigation for several commonly seen infectious diseases are listed in appendix.

9. RESULTS OF LABORATORY AND OTHER SUBSIDIARY METHODS

In this section, the results of laboratory, instrumental and other methods that are directly or indirectly related to the diagnosis are shown. The data should be obtained, if possible, in the course of the disease (dynamical changes), which increases their diagnostic value.

10. TREATMENT PLAN

The plan of treatment should be done for the period of marked clinical manifestations of disease. Specify in details the regime, diet, etiotropic, pathogenetic and symptomatic therapy. The plan of treatment is aimed to the supervised patient, in particular.

11. DIARIES

Diaries (2 or 3) completely reflect the clinical course and therapeutic measures taken. Careful, systematical recording of all the subjective and objective data on the status of individual organs and body systems should be done. The dynamics of the disease (while the disappearance of some and the appearance of other symptoms) should necessarily be reflected. The diary also comprises the conclusions of experts and consultants.

12. TEMPERATURE CURVE (graph)

13. DIFFERENTIAL DIAGNOSIS

Differential diagnosis is needed for the supervised patient, taking into account existing major syndromes of the disease. The nosological forms in which they occur are specified, and then the symptoms of these diseases are successively represented in comparison with the clinical picture in the supervised patient. The results of laboratory and other paraclinical methods of investigation are also taken into account.

14. CLINICAL DIAGNOSIS AND ITS JUSTIFICATION

Nosological diagnosis is formulated with an indication of the clinical form and severity of illness, complications and comorbidities. To substantiate the diagnosis, along with the data of epidemiological history, medical history, objective examination, dynamic observation of patient, the results of laboratory and instrumental techniques are used.

15. EPICRISIS

Epicrisis is a concise extract from the case history, reflecting the main content of it. Mechanically repeating of the subjective and objective data of the patient should be avoided.

All epicrisis data must meet the information stated in the appropriate history sections.

Epicrisis should reflect the following data:

The patient's full name, age, when got admitted in the clinic (date), on which day of the disease, with diagnosis (nosological). Patient's condition and complaints on admission, a brief medical history and characteristics of its course. Clinical and laboratory evidence of the diagnosis: a summary of the main manifestations of the disease, assessment of severity and specific clinical features and basic laboratory data confirming the diagnosis. Prescribed treatment and its effectiveness. The characteristics of convalescence period. The outcome of the disease. Reason for discharge from the hospital.

16. PROGNOSIS. FOLLOW UP AFTER DISCHARGE

17. REFERENCES

The list of publications which were used during the work on the case history: textbooks, manuals, monographs, journal articles, web resources. The author(s), title, edition, year of publishing, journal name and pages should be indicated. For web resources: the author(s), title, website, URL link, date of access.

APPENDIX

The investigation and treatment plans for several infections are listed below. They are based on Temporary Protocols of Diagnosis and Treatment recommended by Ministry of Health of Republic of Belarus. This material should be used as approximate pattern in making own case history. For doses of medicaments appropriate manuals should be used.

Hepatitis A without hepatic coma (ICD–10 code B15.9)

Essential investigations:

• Complete blood count.

• General urine analysis.

• Urine tests: urobilin, bile pigments.

• Biochemical blood test: bilirubin (total, conjugated), thymol probe, ALT, AST, GGT, alkaline phosphatase, glucose.

• Blood coagulation: prothrombin index (prothrombin time, international normalized ratio).

• Serological viral hepatitis markers (ELISA): anti- HAV–IgM, HBsAg, anti–HCV.

Additional investigations:

• Ultrasonography of the abdomen.

Treatment:

• Diet for a patient with liver disease.

• Detoxification therapy: PO (excessive fluid intake) or IV (if indicated) according to severity of disease.

•Hepatoprotectors (if indicated).

Chronic hepatitis C virus (ICD–10 code B18.2)

Essential investigations:

• Complete blood count.

• General urine analysis.

• Urine tests: urobilin, bile pigments.

• Biochemical blood test: bilirubin (total, conjugated), thymol probe, ALT, AST, GGT, alkaline phosphatase, serum iron, cholesterol, total protein, proteinogram, glucose.

• Blood coagulation: prothrombin index (prothrombin time, international normalized ratio).

• Serological viral hepatitis markers (ELISA): anti-HCV, HBsAg.

• PCR test (qualitative) for HCV RNA.

•Blood test for HIV (ELISA).

• Ultrasonography of the abdomen.

Additional investigations:

• Serological viral hepatitis markers (ELISA): anti- HAV–IgM.

• Doppler ultrasound of the liver.

• Thyroid ultrasound, thyroid hormones (T4, T3, TSH, antibodies to thyroperoxidase).

• PCR test for HCV genotype, viral load.
• PCR test for IL28B gene polymorphism (for those with genotype 1 HCV).
• Liver biopsy (determination of inflammatory activity and fibrosis).
• Blood test for alpha-fetoprotein.
• Blood test for cryoglobulins.

Treatment:

• Diet for a patient with liver disease.
• Antiviral therapy: pegylated interferon alpha + ribavirin (for those with genotypes HCV 2 or 3, or for patients with genotype 1 HCV having CC genotype SNP rs12979860 or TT genotype SNP rs8099917 of IL28B gene). Find more material on HCV current antiviral treatment online — in European, American or Asian Pacific regional guidelines (www.easl.eu, http://www.aasld.org, http://apasl.info).
• Detoxification therapy: PO (excessive fluid intake) or IV (if indicated) according to severity of disease.
• Hepatoprotectors (if indicated).

Erysipelas (ICD–code A46)

Essential investigations:

• Complete blood count.
• General urine analysis.
• Blood glucose test.

Additional investigations:

• Biochemical blood test: bilirubin, ALT, thymol test, alkaline phosphatase, total protein, proteinogram.
• ECG.
• Consultation of a surgeon.

Treatment:

• Penicillin for 5–7 days.
• Local physiotherapy (if indicated): UHF-therapy or UV.

Influenza (ICD-10 code J10.1)

Essential investigations:

• Complete blood count.
• General urine analysis.
• IFA for respiratory viruses (influenza A, influenza B, parainfluenza, adenovirus, RS virus) or PCR test for influenza virus RNA.

Additional investigations:

• Biochemical blood test: bilirubin, ALT, AST, urea, electrolytes (K, Na), glucose.
• Chest radiographs.
• ECG.

Treatment:

• Antiviral drugs: Ozeltamivir, Zanamivir, Human leukocyte interferon.
• Antibiotic therapy in the presence of bacterial complications.

Infectious mononucleosis (ICD-10 code B27)

Essential investigations:

• Complete blood count.

• General urine analysis.

• Biochemical blood test: bilirubin, ALT, AST, thymol test, alkaline phosphatase.

• HIV antibody test (ELISA).

• Detection of anti-VCA-IgM (ELISA) or heterophile antibodies test.

• Ultrasonography of the abdomen.

Additional investigations:

• Chest radiographs.

• Serological markers of viral hepatitis (if liver function tests are abnormal): anti-HAV IgM, HBsAg, anti–HCV.

• Consultation of doctor-hematologist.

Treatment:

• Non-steroid anti-inflammatory drugs (diclofenac or ibuprofen).

• Antihistamines (e.g. loratadine).

• Detoxification therapy: PO (excessive fluid intake) or IV (if indicated) in the period of intoxication.

• Corticosteroid therapy (prednisone 40–60 mg / day PO) for 3–5 days when complications are present (obstruction of the upper airway, thrombocytopenia, complications of the central nervous system).

• Antibiotic therapy in the presence of bacterial complications.

Enterovirus meningitis (ICD-10 code A87.0)

Essential investigations:

• Complete blood count.

• General urine analysis.

• Biochemical blood test: glucose, creatinine, urea, bilirubin and its fractions, ALT, AST.

• Lumbar puncture and study of the cerebrospinal fluid (CSF).

• PCR test of blood, CSF for detection of enterovirus RNA.

Additional investigations:

• Echoencephalogram.

• Consulting specialists: neurologist, ophthalmologist.

• CT scan or MRI of the brain (if indicated).

Treatment:

• Detoxification (if indicated).

• Dehydration therapy (Glucose 10 % 400 ml + insulin 8 U + solution of potassium chloride 7,5 % sol. 10–20 ml) for 2–5 days; OR 400 ml of 20 % mannitol or 400 ml sormantol IV — 2–5 days.

• Furosemide 20–40 mg / day PO or IV — 2–3 days, or another diuretics.

• Dexamethasone 0,15–0,3 mg / kg / day IV — 2 days (if indicated).

• Diazepam 10–20 mg IV or IM in case of convulsions.

Leptospirois (ICD–10 code A27.0)

Essential investigations:

• Complete blood count.

• General urine analysis.

• Biochemical blood test: bilirubin and its fractions, ALT, AST, creatinine, urea, electrolytes (K, Na, Cl).

• Blood coagulation: prothrombin index (prothrombin time, international normalized ratio).

• Bacteriological examination of blood and urine for Leptospira spp.

• Serology: microagglutination test.

Additional investigations:

• Coagulogram.

• Consulting specialist: urologist, neurologist.

• Chest radiographs.

• ECG.

Treatment:

• Antibiotic: benzylpenicillin, or ampicillin, or ceftriaxone, or doxycycline — 7 days.

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